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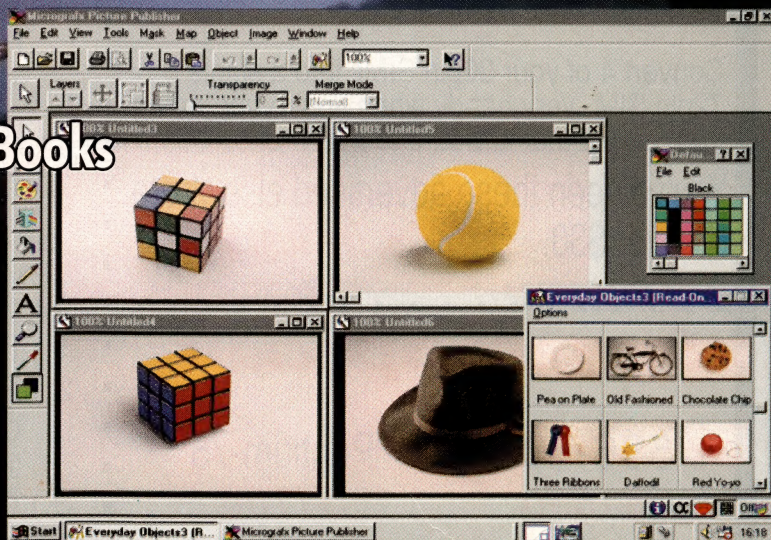


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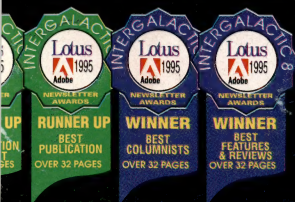
**MELBOURNE PC USER GROUP**

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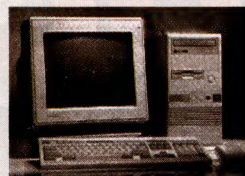
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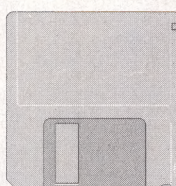
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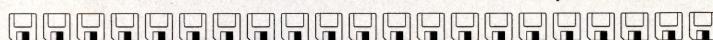


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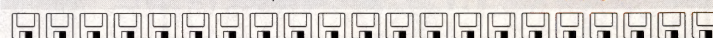
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### Office, membership, deliveries, internet

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66 Albert Road  
South Melbourne VIC 3205  
(10 am – 3.30 pm)

9699 6222

Fax 9699 6499

### Mail to

PO Box 283  
South Melbourne VIC 3205  
Australia

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Tricia Swan  
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### First Aid (Help) line

(10 am – 3.00 pm)

9696 9200

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### Online Services

(all 28.8 kbps)

Melb PC BBS (34 lines)

9699 6644

9699 6611

### Internet Service

Up to 90 minutes/day,

48 lines 9645 7844

Up to 30 minutes/day,

16 lines 9645 8614

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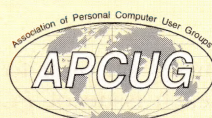
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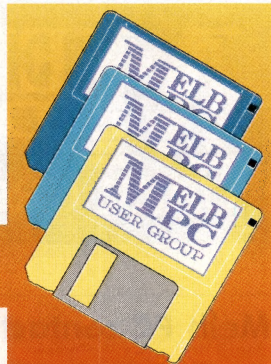
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# What does membership of Melb PC offer you?



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Software  
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Special  
Interest  
Groups  
Training  
First-Aid  
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Monthly  
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Bulletin  
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Internet  
Service  
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## Strength

Melbourne PC User Group Inc. is the biggest computer club in the Southern Hemisphere, and—with over 11,700 members—the second largest in the world. It was founded in 1983, and is still run for its members, people like **you**.

The Group employs two full-time office staff and some part-time help. Magazine production and training are also contracted out, but most other functions of the club—magazine writing and editing, BBS and Internet maintenance; collection and distribution of shareware; organisation of SIG and monthly meetings and much more, is performed by volunteers.

The Group today proudly has a membership of people from all walks of life and with a broad range of computer skills. With this vast store of knowledge, members have access to information and help in numerous fields—programming, software solutions, communications, DOS and Windows, to name just a few.

## Special Interest Groups (SIGs)

The Group has a number of SIGs covering many aspects of personal computing. A SIG can deal with any topic relating to personal computing, ranging from programming languages to hardware and peripherals, or how to get the best from your equipment.

There are also a number of regional SIGs, catering for members in outlying geographical areas.

A list of meeting dates, places and contacts for SIGs is published each month in this magazine, (see later in this issue), together with reports of previous and forthcoming activities. Attendance at any or all SIG meetings is available to any member.

## Software Library

Melb PC maintains an extensive and up-to-date software library of programs (over 2000 disks containing over 40,000 files!) for IBM-type personal computers, obtained from around the world. This library of shareware software is available only to Melb PC members and is supplied on new disks at very low prices.

Members receive an order form for this software with every issue of *PC Update*.

## Training

One of the Group's most important and popular services is the provision of training in a diverse range of computer skills, from starting with computers to advanced programming.

Melb PC has its own fully-equipped training centre, using Hewlett-Packard 486 systems. Courses are run as a service to members and thus are budgeted on a break-even basis, making them very cost-competitive when compared to similar courses elsewhere.

Students are taught in a classroom environment with an instructor and one computer per student. *Starting Computing*, *Using DOS*, and *Turbo Pascal* are typical subjects taught in this way.

Full weekend workshops, some of which are live-in, also prove very popular and are run about six times a year.

All courses provide suitable training material and facilities. In addition, dial-in help is available for students between classes, as is follow-up coaching after the classes are finished.

A list of courses on offer to members appears in each issue of *PC Update*.



## Computer First-Aid and Dial Help

This unique service is made available free to members simply because volunteers within the Group give their time and knowledge to assist you with any computing problems you may have. Over 300 telephone numbers of unpaid volunteers, with day- and night-time contacts, are listed in the member's version of *PC Update*. The service covers over 130 separate topics.

## Internet Service

The club provides access to a 64-line full-featured Internet service, providing access to Usenet, ftp, irc, www, gopher and telnet.

SLIP/PPP accounts are provided. This service is very popular and is being expanded and enhanced to serve a larger number of members.

## Magazine

*PC Update*, the journal of the Melbourne PC User Group, is sent to you 11 times a year as part of your membership privileges. *PC Update* publishes articles written by members and all members are welcome, indeed encouraged, to write articles on a subject they know about, to share with others. *PC Update* also reprints occasional articles from overseas user groups, ensuring that Melb PC members are kept as up-to-date as possible.

In 1991 *PC Update* was honoured with no less than three awards in the International BIX Newsletter Contest, including the world-wide award for "**Best Feature Articles**." In 1992 it was the outright winner of "**Best Publication**," beating all other user groups world-wide, both PC and Macintosh. Again in 1993 and 1994, it received more awards, also for feature articles. In 1995 *PC Update* was the outright winner in the "**Best Features and Reviews**" and the "**Best Columnist**" categories. It was also runner-up in the "**Best Publication**" and "**Best Layout and Design**" categories. Many people join the Group just for the value *PC Update* provides, well worth the annual membership fee on its own, and then discover all the other benefits of membership.

It costs about the same to join Melb PC and have *PC Update* mailed to you, as it does to buy a year's issues over the counter.

## Monthly Meeting

Each month, from February to December, Melb PC holds a meeting, open to its members and visitors. The meeting is usually addressed by two representatives from the computer industry on topics of general interest. They frequently give away samples of their software and other products. These speakers include many from Australian vendors and distributors—we have also been privileged to be addressed by CEOs such as Philippe Kahn, Gordon Eubanks and others who made special visits to address our members.

There is also the ability to address questions to the membership at large, seeking advice or problem-solving. Shareware and diskettes are for sale and members take the opportunity to socialise and discuss anything that takes their fancy—even computers!

Following the meeting many members gather for further discourse over a meal, arranged at a convenient restaurant, at "user-friendly" prices.

## Bulletin Board

Melb PC operates a 23-hours-a-day bulletin board system (BBS) as another of its member services. The BBS, running on 34 lines, is the biggest OS/2-based BBS in the world.

The BBS has two main functions—electronic mail and message exchange, and file transfer facilities. The mail and messaging facilities enable members to exchange messages with each other and to seek help on a wide range of topics not only from other members but also from the personal computing community world-wide. Through this service, users of the BBS have access to an enormous pool of experience and talent on a vast array of subjects. If you have a problem, put a message on the BBS and, more often than not, it's answered in a day or so!

In the file transfer areas the BBS carries many files on a range of topics. These have been uploaded by members who found them useful and can be downloaded for use by other members. They include many useful utilities and the latest version of shareware software, often obtained from overseas BBS before appearing in Australia in other outlets.



## Shareware Registration

Much of the most popular software on Melb PC's Bulletin Board and in its software library is shareware, i.e. try free and pay only if you like and use it.

The club organises bulk shareware registrations, usually at a substantial discount.

Club-organised registrations also save members the costs of US-dollar bank drafts and overseas postage.

**You owe it to yourself . . . . Join Now !**

## MELB PC Membership Application

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		Postcode	Country																
Telephone Numbers	BH: (    )	AH: (    )																	
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Employer/Company Name *																			
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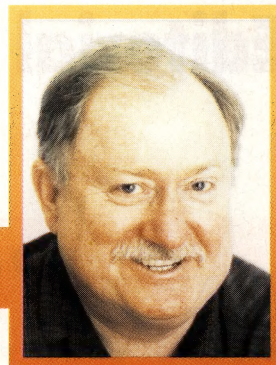
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## CLUB PRESIDENT'S UPDATE

*Charles Wright*



**T**here is a tiny sector of the club which politicises everything the committee does. It imputes dishonest or selfish motives to management decisions that the club's executive makes in the interests of the group.

If we give free Internet accounts to committee members, to speed up the flow of information so that important decisions aren't left until we have a monthly meeting, they immediately suggest that this is a "free perk," and spread their ugly gossip.

If we pay a former committee member for providing essential services—even if the payment is far below market rates—we know someone will be scouring the garbage bins searching for some promising material.

If we ask members to represent the club at the annual forum in the US of the Association of PC User Groups, an invaluable way of sharing information with most of the world's user groups who also send delegates, and the best contact point with the industry figures who can help the group, they know they won't be thanked for making the time available.

Having been there as a journalist and not being at all anxious to return, I can tell you the trip is no holiday. But these members know they won't be thanked. They know they will be smeared for taking a "free trip."

An example of the unworthy consequences: a member of the committee takes a political position on this important topic—not opposing the move, but abstaining, and asking that it be publicly recorded. In my view, that's not the sort of leadership any organisation ought to encourage.

We all know, of course, that this sort of campaign is aimed at settling personal scores, or enhancing a small but organised opposition's prospects for election (although they don't seem to get very far when the votes come in), or just simple enjoyment of mischief-making.

We know that these are the tactics of pygmies—small people who fire poison darts. That poison can bring down some big game, however, and it has in the past, and continues to lose us the

precious volunteers on which we rely to build the group. It's also part of the reason so few people put their hands up when something has to be done.

We are wisely advised to ignore these pygmies, and although it's easy to give that sort of advice when you're not in the firing line, largely we do. But eventually, unless the victim is entirely insensitive—another quality that doesn't make for good leadership—it takes a toll.

Last month, for instance, when we honoured four life members, there were more insulting messages on the BBS aimed at people who have unselfishly devoted years of long hours and unstinting effort. These are people to whom this group owes a debt we can never hope to repay. But even as we made the awards—ignoring the public demonstration of pique by one small-minded attention-seeker—snide messages were circulating, making all sorts of unworthy allegations.

As president of this group I have deliberately refused ever to take a cent from the group, simply because it allows me to push for the decisions I believe are necessary for the growth of this group, with total objectivity. (That hasn't stopped some of these dwarfs from suggesting that I too, am on the take, although they very quickly shut up when I've invited them to back up their allegations.)

But again this month, I've seen one committee member forced to take a leave of absence because of the level of invective aimed at him.

There are few to defend him, or help him with the heavy load all committee members take up on our behalf. I hope that he will come back to us. But perhaps he won't. God knows it's a thankless task.

As president, I grieve for these people, but remain powerless to stop the white-anting and cynical baiting of people I respect and admire.

And I realise increasingly that even my own motivation is being damaged by the pygmies.

As I was preparing this update, I watched members of our Internet team working late into the night trying to track down the source of a mysterious

attempt to invade and paralyse our system.

I realised that this was an allegory of the club's history. I knew the people who attacked us had nothing to gain but the satisfaction of destruction, and that a handful of dedicated people were there—would remain there until the early hours, without pay, without thanks—defending the interests of the group.

I also knew that this same team was being savagely criticised on the BBS and elsewhere for daring to suggest that the invective being levelled at various members ought to cease, or be moved to a less public area.

Those who attacked them believe that all that really matters is that they have the right to say whatever they like, whenever they like, on the systems that the people they are criticising slaved—the word is not an exaggeration—slaved, to establish and maintain.

I have been in precisely the same position in the past, and I know what it's like to be left to cop this sort of prolonged, malicious assault, from people one generally never meets.

I realised that I cannot defend our volunteers. I realised that they can only be defended if the entire body of the membership not only refuses to listen to these pygmies, but rises in anger against them and silences them.

I find myself saddened by this situation, and, as I have said, rapidly losing all enthusiasm. I do not, in the circumstances, intend to serve another year. I am determined, however, before I leave, to do my best to defend the reputations of people I respect, and hopefully make it safer for decent people to serve the group, without fear of public attacks on their integrity.

Henceforth, I will not give a forum in any of the club's organs for those who persistently malign the servants of this club. I have asked the committee to warn the most serious offenders on the BBS and Internet against malicious and defamatory messages.

....continued on page 16



## WORKING WRITER'S WORDS

Carol Daniels



**A**sh, you've done it again! Thanks to Ash Nallawalla, Melb PC is developing quite a reputation in cyberspace. Our Master User Group Page, which Ash developed, made the *Iway 500*, a listing of the top web sites in the world. Iway's annual evaluation rates web sites based on seven criteria:

- Serves intended purpose
- Depth of content
- Accuracy
- Accessibility
- Design/style
- Navigation
- Performance.

In the computer category, where the page was placed twenty-fifth (out of 25), they also looked at: technical help, spec sheets, FAQs, white papers, reviews, downloadable updates and bug fixes, e-mail for one-to-one tech support and documentation. Visit Iway's Top 500 page at <http://www.cciweb.com/iway500/iway500.html>, you'll be impressed with the company we keep.

Here's what Iway had to say about the page: *"User groups are incredible resources for learning, for asking, and for sharing. But how can you locate one? If you're in the market, Ash Nallawalla's site is the best resource for finding a user group that suits your interests. You can find user groups in your geographic area, by platform, and*

*by brand; find resources for setting up a group, and even pointers to user-group newsletters on the Web. There's no other resource like it."*

Melb PC Internet service subscribers are already familiar with our home page. But you don't have to subscribe to our service to visit our page. If you have access to the web—through a school, business, commercial service provider or a public access site at a library—stop in at <http://www.melbpc.org.au>, the award winning page is just a mouse click away at <http://www.melbpc.org.au/others/index.htm>.

Melb PC—through its work with other user groups, *PC Update*, and now our web presence—may be doing more to raise the international profile of Melbourne than all the major sporting events, festivals, etc the city has hosted.

### Education, formal and informal

One thing I've been doing since taking on the role of Assistant Editor for *PC Update*, is learning Hypertext Markup Language (HTML) so that I can put the new issues of *PC Update* online. It's been a learning experience, in many ways. I've never been much of a web-surfer, so my knowledge of HTML was superficial, at best. HTML isn't the only markup language but it's one of the most commonly used to create World Wide Web (www) HyperText documents, like the home pages that are all the rage on the net.

And I'm still on my L-plates. All I'm doing is formatting each month's issue to fit an already established style. The hard work—establishing the site's structure and a basic style for the publication—has been done. Eventually I'll be looking for ways to improve on what's already there.

Now, I have to be more interested in web pages (at least that's my excuse). What I find as I visit other sites is that many site developers and page designers aren't as conscientious as Melb PC. So many pages seem to have been developed backwards. Style first, content second and structure last.

That's a shame. From my perspective, the beauty of HTML is that it forces the author to think about the logical or hierarchical relationship between elements of the document. Actually I should have said, "Used properly, HTML forces the

## ...a healthy dose of scepticism...in cyberspace...and you'll do just fine

author to think about the logical or hierarchical relationship between elements of the document." Advances in HTML, web browsers and the frenzied hype that surrounds almost anything that has to do with the Internet, have turned web page design into the DTP of the nineties. Now we have people producing absolutely awful web pages faster than they ever could before.

### Gold or fool's gold?

In line with this issue's theme, "Education," I spent some time testing the Internet as a research tool. I focused on a few subjects I'm interested in, professionally and personally. As I did I was reminded of the way that electronic communication multiplies your access to information and experts. That's the double-edged sword of electronic researching. When you collect more information than you could possibly use and make contact with more experts than you ever believed existed, you have a big chore ahead of you.

The more I use electronic communication, the more I'm convinced that nothing spreads faster than misinformation and no one talks louder than a crackpot. That revelation won't see me named the new, Australian Nostradamus. Mischief makers who thrive on strife, usually of their own creation, have always been with us. Computers and electronic communication just make it easier for them to spread information (and misinformation) faster and further than ever before.

A lot of misinformation is spread by ill-informed people with good intentions, rather than by those intentionally trying to mislead. In any group, large or small, you'll find some people with their own agenda (usually hidden) who are willing

### PC Update themes for 1996

Month	Theme
May	DTP, OS/2 & NT
June	Multimedia
July	Small Office/Home Office
August	Windows Special
September	Utilities
October	Graphics
November	Business Applications
December	Christmas Special



to bend the truth to serve their purposes. When you are new, it's not easy to distinguish between the genuine expert, the well-meaning fool and the diehard crank.

Electronic communication makes it that much harder. And no wonder. A lot of electronic communication is carried out between strangers—who might live across the street or on the other side of the world. But even without common knowledge, culture or experience—all those things that add context to interactions between people—real communication can take place. That's part of what makes electronic communication so exciting.

The good news is that the same sorts of early warning systems that work for you in the real world will serve you well in cyberspace. You just have to remember to use them. I'm not advocating paranoia, just caution. Pack a healthy dose of scepticism on your adventures in cyberspace and you'll do just fine.

### Using the information you've found

Copyright, intellectual property rights and the application of "fair use" have always been complicated legal issues. The Internet has only made them more so. (If there's a member out there with legal knowledge in these areas who like to write a lay-person's guide to copyright in the electronic age for *PC Update*, I'd really like to talk to you.)

In the absence of an expert voice right now, I'll stick my neck out and offer some advice. Resist the temptation to take articles, reports, stories, etc. you find on the BBS or Internet. This sort of theft is harder to track when the source is in Istanbul and you're in Warrnambool, but *it's not impossible*.

Myths about copyright make the rounds in cyberspace with depressing regularity. Learn the difference between using facts to create your own work and taking someone else's work. If you do want to use something you've found on the 'net or on the BBS, ask first and always credit the originator.

If you are unclear about the difference between "public" and "public domain" or are planning a book of e-mail messages you've received or newsgroup postings you've read, you'll want to visit one or more of these copyright related web sites.

- Brad Templeton Home Page, "10 Big Myths about copyright explained": <http://www.clari.net/brad/copymyths.htm>
- The Copyright Website: <http://www.rpi.edu/~schmel/hotprop.html>
- Hot Property at: <http://www.rpi.edu/~schmel/hotprop.html>
- Index to the Australian Copyright Act 1968 (Reprinted as at 1 July 1995): [http://austlii.law.uts.edu.au/au/legis/cth/consol\\_act/ca1968133/index.html](http://austlii.law.uts.edu.au/au/legis/cth/consol_act/ca1968133/index.html) □

## Bytes—the bare bones

**Christopher Canham**

The capacities of computers and floppy disks are measured in bytes. Files are measured in bytes. So what is a byte? What does the dictionary have to say about bytes?

According to the *Oxford Complete Wordfinder* (a single volume, combining both a dictionary and a thesaurus) *byte* is a noun, used in computing and means a group of eight binary digits, often used to represent one character.

In brief then, a byte is a character, a letter, a symbol or a digit. A normal page of text would contain about 3000 bytes and a three-megabyte colour image would equate to about 1000 pages of text.

The same reference source tells us a kilobyte (KB) is 1,024 bytes as a

measure of memory size, or loosely considered as 1,000 bytes. A megabyte (MB) is 1,048,576 bytes as a measure of data capacity, or again loosely 1,000,000 bytes.

Another measure of capacity that is becoming common—especially when referring to hard drive capacities—is the term gigabyte (GB) where giga denotes the ninth power of 10. (One gigabyte is 1,000,000,000 bytes.) The mind boggles, especially when I think of my humble 40 MB hard drive!

Next time you see something measured in "so-many-bytes," you'll be able to relate to it, won't you? □

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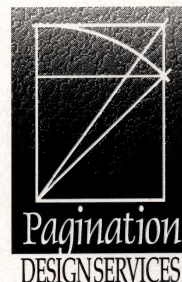


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# ABC Graphics Suite for Windows 95

## SOFTWARE REVIEW



Bob Burt

**T**his new integrated graphics offering by Micrografx enters fully into the spirit of the new Windows 95 (Win95) platform. Not only has it been designed to run with Win95 as a full 32-bit application, with all its benefits, but it also provides a Microsoft Office 95 interface for its major components. While ABC Graphics Suite (ABCGS) is aimed at users of the new version of Microsoft Office, Office 95, the latter is not essential. In fact I run Win95 with the early version 4.0a of Office.

### The package

ABCGS comes on four CD-ROMs. Strictly speaking, three are provided, but a fourth, the Instant 3D CD, is posted to you free of charge provided the request is postmarked by June 30, 1996.

There are five major 32-bit applications included in the Suite

- Micrografx Designer 6.0
- Micrografx Picture Publisher 6.0
- ABC FlowCharter 6.0
- ABC Media Manager 6.0
- Instant 3D

Included on the main Applications CD (and again on the Instant 3D CD-ROM for that matter) is a copy of ABC SnapGraphics 2.0a. Although this is a 16-bit application, it does have a MS Office-style interface.

The remaining CD-ROMs are filled with symbols, drawings and pictures, which, with those images contained on the Applications CD-ROM, number close to 30,000. The Applications CD-ROM also holds 386 TrueType Fonts.

There is a major change in regard to documentation. ABCGS does not contain any individual manuals for the major applications such as Designer, relying instead on the comprehensive online help files and a very good six-page folded Quick Reference Card. There is a modest manual entitled "Getting Results with ABC Graphics Suite," which covers in some depth the use of one of the new applications, the ABC Media Manager and provides many examples of how to use the package, including "Preparing Graphics for the Internet," as well as business-related graphics-enhanced documents. There is little documentation in support of the new member of the pack, Visual Software's Instant 3D, though.

A 570-page "ABC Graphics Suite Media Guide" illustrates all the font sets and every diagram, drawing and photo image included on the CD-ROMs.

### Installation

As you would expect with such a substantial package, installation can consume much hard disk space. You have three installation options—*typical*,

*compact* or *custom*. I selected *compact*, actually recommended for laptops, which was reckoned to occupy about 30 MB on the hard disk. In fact, I used up 42 MB on the first run. I had a second run, as I found that *compact* denied me the online help files for both Designer and Picture Publisher. As the help files, like most of the applications material are compressed on the CD-ROM, I couldn't just change the pointers as I did with Designer 4.1, for example, so the help files had to be installed on the hard drive also. Only a quite small subset of the clipart was installed. If you choose to install all components of the Suite, you will require over 80 MB of space and, of course, still need to access most of the clipart from the CD-ROMs.

Like all good Win95 applications, you can uninstall one or more applications whenever you wish, leaving intact any documents or graphics you have created.

### Using the Media Manager

One of the key operational features is the unencumbered way in which the ABC Media Manager can be used to store and provide images for other applications, whether they are part of ABCGS or not. Provided the application is OLE 2.0-aware, retrieving an image is simply a matter of selecting its thumbnail image in the Media Manager and using "drag and



Figure 1. Drag & drop from Media Manager into Word for Windows.

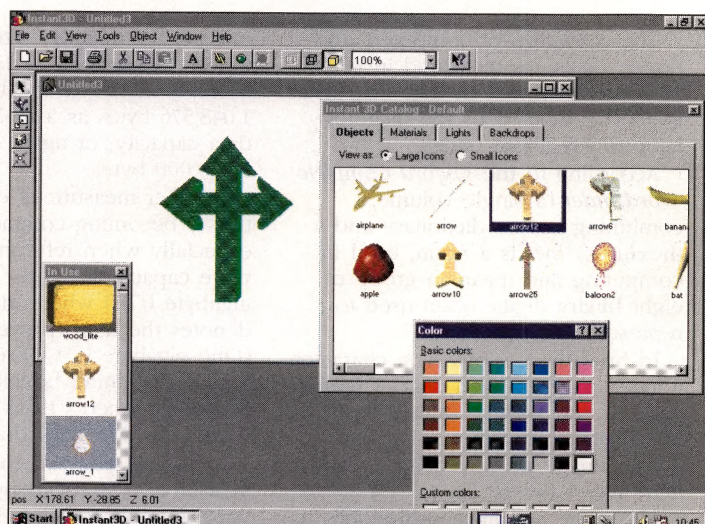


Figure 2. Instant 3D.



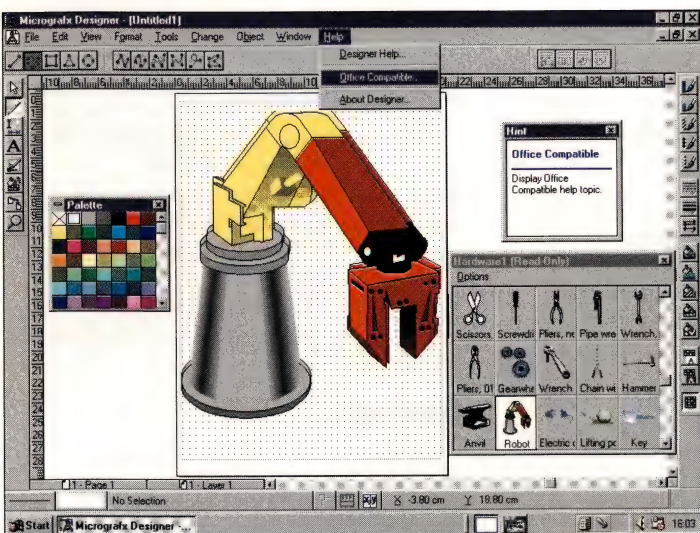


Figure 3. Micrografx Designer 6.0.

drop". Transfer is very fast. Media Manager is an excellent utility, the best of its kind that I have had the good fortune to use. The application is compact, senses a change of the CD in the CD-ROM drive and lists all the image folders on that particular disc very quickly.

With my much earlier Microsoft Office package, I did not have the advantage of one click access to the Media Manager directly from the toolbars of Word or Excel, which is available from Office 95 melded with ABCGS. However, it does provide transparent file conversion; that is, you can drag and drop graphics of all the common file formats in and out of the Media Manager without calling up an import/export filter. The utility also includes a keyword search facility for any symbol.

## Using Designer

The drawing component of ABCGS is Designer. As its basic freeform graphics capabilities are similar to Designer 4.1 TE, which I reviewed in the September

1994 issue of *PC Update*, I will not repeat them here. Of course, there are differences, quite apart from the new interface, all for the better. Screen redrawing is quite clearly faster, as are many of the designing and drawing operations. There are now over 50 import and export filters available, including new support for AutoCAD DWG files, Corel clipart CMX files and Desktop Color Separations DCS files. Operations like *Text Along a Path*, *Warping* and *Auto-tracing* and other special effects have been enhanced so that they can be up to 3 times faster than in the earlier version.

## Using Picture Publisher

Both Designer and the painting and image editing program, Picture Publisher, allow what is termed *Inter-application Multitasking*. This apparently means that you can work on multiple tasks *within* the same application at the same time, indicating (to me, at least), that it should properly be termed *Intra-application Multitasking*! You can view the

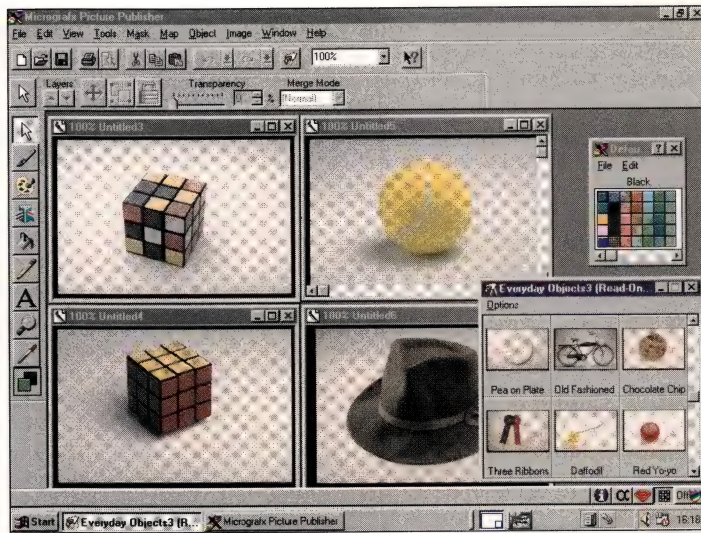


Figure 4. Micrografx Picture Publisher 6.0

progress of such tasks by calling up the *Image Task Manager* from the *View* menu.

Picture Publisher's earlier version was reviewed in *PC Update* (December 1994), so there is little need to go through its basics. Improvements are substantial. An important addition is support for the GIF 89a specification for transparent and interlaced GIF files, so popular these days for Internet Web pages. Also, you can add tools and commands to floating or dockable custom toolboxes, reached through the *View/Toolbars..* command.

## Using FlowCharter

The diagram-generating component of ABCGS is ABC FlowCharter —its earlier version 3 was reviewed in *PC Update* in April 1994. The new version provides similar operating tools, to produce a very wide range of diagrams, but of course, speed has improved noticeably. It also includes some very advanced features.

First, it supports *OLE 2.0 Automation*. To use this effectively you would require Visual Basic, a good knowledge of

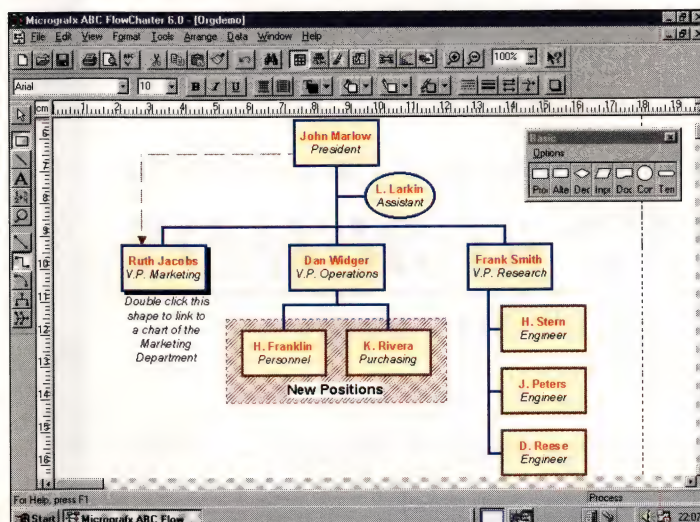


Figure 5. ABC FlowCharter 6.0.

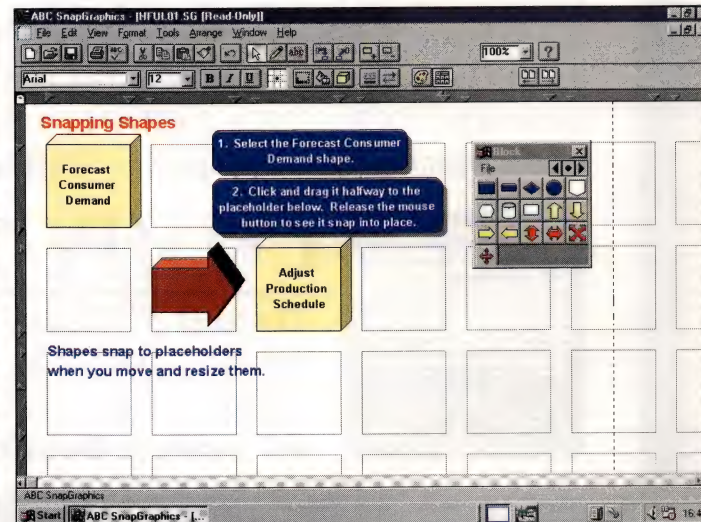


Figure 6. ABC SnapGraphics 2.0a.



by ABCGS in both languages to get you started. The idea is to create "custom interactive solutions" to integrate ABC diagrams with Excel, Access or other applications which can read and write Basic. There is a special help file called AUTOMATE.HLP that contains fully detailed information, which can be reached from the application's help file. Likewise, the Visual Basic help file can be directly reached from FlowCharter, provided you have it in your path.

Secondly, FlowCharter also supports VBX/OCX controls so that selected functions can be modified, perhaps to restrict usage of the delete key by operators who do not have the authority to change a shape or data field.

### Using Instant 3D

Visual Software's Instant 3D was added to ABCGS in late 1995, after the Suite's original introduction. It adds the capability to produce 3D text and graphics to any other component of the Suite, Office 95 or any other Win95 application.

Although there is no manual, operation of Instant 3D is simple. To create text in 3D, for example, you call up *Tools/Text* to present the Text Dialog box, which, in true Win95 fashion, has all the options grouped in tabs for easy access. Thus the Text tab allows you to type in text and change the font and font attributes,

paste in text from another application or cut/copy to another program. The other tabs, Bevel, Shape, Path and Deform allow you to work on your text-based image for a variety of 3D effects.

Instant 3D is equipped with a Resource Catalog, a drag and drop source for Objects, Materials, Lights and Backdrop, each of which is a component of the "scene" you create. The Resource List shows you what items make up your scene and you can drag and drop items from the Catalog to the List, replacing the originals. A right click on a List item allows you to change various attributes, such as material, colour, texture and object-rendering properties.

Perspective (lens effect) can range from wide angle, through normal, to telephoto.

### Benefits of using Office 95

These are the features which I lacked in my installation, through using an earlier version of Microsoft Office

- *In-place Editing.* You can, for example, double-click on a flowchart placed in Word 7 and the ABC FlowCharter toolbars and menus will appear in Word, so any revisions are saved in both applications.
- *Microsoft Office Binder.* This enables you to collect, print and distribute mixtures of various document types in coordinated fashion. Binder allows you

to keep all documents in one location, even when the pages are created by different applications.

- Automatic placement of the icons for the applications comprising ABCGS in the Office Manager toolbar
- Designer and Picture Publisher can share the same dictionaries that are available in Office 95, even when they are customised.
- ABC Media Manager is represented by an icon in the toolbars of both Word 7 and Excel 7.

### Conclusion

As I have usually found with Micrografx graphics applications, I was suitably impressed by ABC Graphics Suite and found all the applications to be of a high standard. Despite the obvious complexities of Win95 and this package, no strange things happened when using the Suite and all components appeared to be very robust in action.

I believe the Suite is very good value, particularly with prices in Melbourne at more than \$150 below the RRP.

The review copy of ABC Graphics Suite was kindly provided by Micrografx Australia  
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**PC Update Readers' Choice Award Winner — 1994**



# Corel World's Greatest Classic Books

## CD-ROM REVIEW

Bernadette Houghton

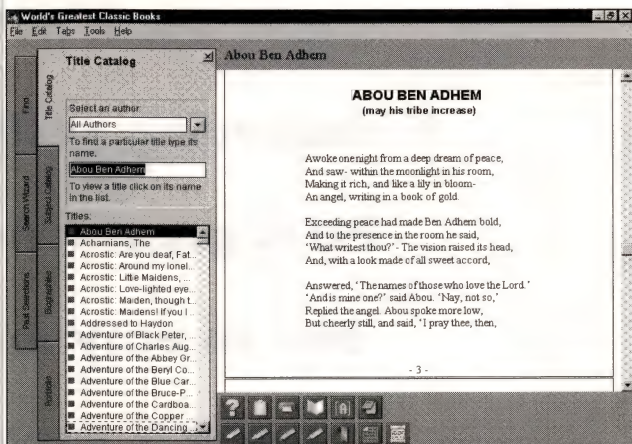


Figure 1. Main WGCB screen.

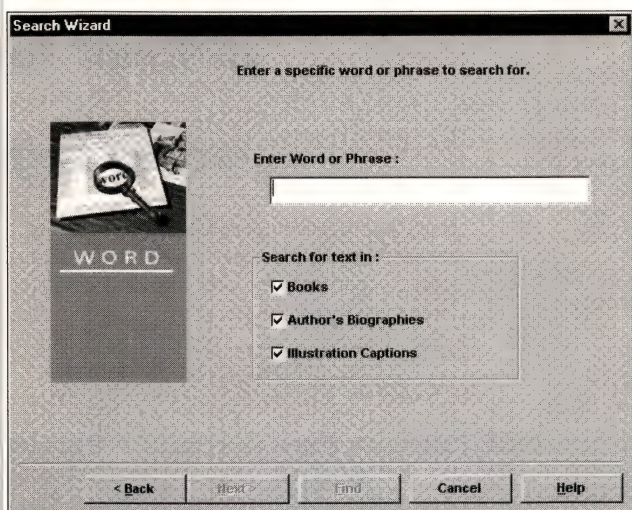


Figure 2. The Search Wizard.

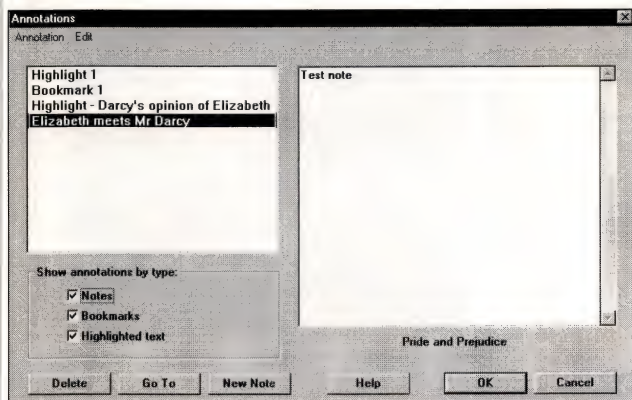


Figure 3. Annotations screen.

Part of Corel's CD Home series, the *World's Greatest Classic Books* is a collection of over 3500 literary works. There are plays, poems galore, short stories, full length novels and a veritable mountain of religious, scientific, historic and political documents.

The collection features a diverse range of works, including the Magna Carta, the King James version of the Bible, treatises by Sophocles and Hippocrates, and Homer's *Odyssey*. The complete collection of Shakespeare's works is there, with several Sherlock Holmes mysteries and even the fairy tales of the Grimm Brothers and Hans Christian Andersen. War and Peace is present, as are two of Jane Austen's novels and Anne of Green Gables. There are author biographies, illustrations, pictures and 15 minutes of video clips.

Arguments about which titles should be included in collections are often unproductive, but it is disappointing that there are no Australian classics or works by Australian authors included.

As Figure 1 shows, the main screen contains a number of tabbed catalogues on the left, with the text of the current work displayed on the right. You can retrieve works by author, title, broad subject categories or by text strings. Searches can be further narrowed using the Search Wizard to specify additional criteria, such as date ranges (Figure 2). The American Heritage Concise Dictionary is a double-click away, and a spell-checker is available if you need to check spelling.

There is a handy toolbox underneath the document screen (Figure 1). Using this, notes and bookmarks can be inserted anywhere in a document and important passages highlighted in any one of four colours. The word processor of your choice is a double-click away, and all or part of a work can be copied to

it, to a printer or the clipboard. The screen can be set to scroll automatically for hands-free reading, and slide shows can be created from your notes, highlights and bookmarks (Figure 3).

The interface, although visually pleasing, is not well designed; the video clips are of poor quality and the search tools are clumsy and inflexible. The Search Wizard, for example, will only work if you have first entered a text string. Tooltips appear when the mouse cursor rests over a tool button, but these are too small to read comfortably in 800 x 600 mode. Conversely, in 640 x 480 mode, the tooltips are easy to read, but the text of the works is not! A very sad failing is the inability to change the text font. I have several other criticisms of WGCB's interface and search engine, but these will do for now!

Despite these criticisms, WGCB is definitely a good reference work, with an extensive range of documents, and most of the tools you may need for study purposes are close at hand. The annotating mechanism is quite good, with the slide show a useful way of reviewing and organising notes from your research. If you are a student or enjoy reading, WGCB is nice to have and, depending upon your needs, could turn out to be a very valuable resource tool.

### Minimum system requirements

IBM-compatible 486, Windows 3.1, 8 MB RAM, MS-DOS 5.0, double-speed CD-ROM drive, SVGA card and monitor (640 x 480, 256 colours), and a Sound Blaster compatible audio card for video clips. WGCB requires from 1.5 to 11 MB of hard disk space, but needs the CD in the drive to run.

### Availability

The Corel CD Home series is available from Harvey Norman, Dick Smith and Brash's, as well as local software retailers. □



# Corel Print House

## SOFTWARE REVIEW

Bernadette Houghton



**L**ooking for a reasonably priced graphics program that is easy to master and doesn't overwhelm you with hundreds of options you'll never use? Consider Corel Print House. It is fun to use, has some excellent features and doesn't take much relearning if you haven't used it for a while.

Designed for Windows 95, PH helps you create cards, certificates, labels, business stationery, brochures and the like. If you are somewhat lacking in artistic ability, your secret is safe with PH—within a few minutes of launching it you can print out very polished and professional-looking artwork. On the other hand, if you prefer to produce your work from scratch but don't need the power of a full-featured drawing program PH gives you the tools you need to do the job (Figure 1).

PH has a **very** large number and variety of professionally designed samples and templates. There are over 900 samples, 5000 pieces of clipart, 1000 photos, 1000 phrases, 100 fonts and much more. A real bonus is the inclusion of nearly 600 templates based on Paper Direct paper designs. The range of samples and templates is wide indeed, with something to suit almost everyone from home users to business users; but if

you don't like something you can easily change it.

Most of the graphics used in the samples come from the clipart collection on the CD, but there is a special category of cards made from bitmapped images, just like the cards you buy in the shops (Figure 2). The clipart is vector-based, editable and of a motley variety with—unlike some clipart collections—not too much emphasis on things American. The fonts provide a reasonable coverage of typeface categories, and the phrases range from the quirky (I'm here. You're there. One of us is in the wrong place) to the sickly sentimental (What a dream come true, to have someone so sweet and new) and all shades between.

### How it works

Depending upon your level of experience, PH can lead you each step of the way or leave you alone to start beaver away with the tools provided. The desktop contains a familiar Windows interface with one difference—the Notebook. This contains

- The Key page, which uses cue cards to guide you through your current task (Figure 2).
- The Style page, which contains dozens of pre-set colourings, line and text styles and shadows (Figure 3). Styles

**Is it worth it?**

**A resounding yes!**

**PH is great fun**

**and so easy to**

**use it is very**

**difficult to**

**go wrong**

are applied by dragging and dropping onto a selected object. You can create your own styles if you like and drop them onto this page; and

- The Catalog page, which displays thumbnails of the clipart, backdrops, borders and phrases on the CD. Just

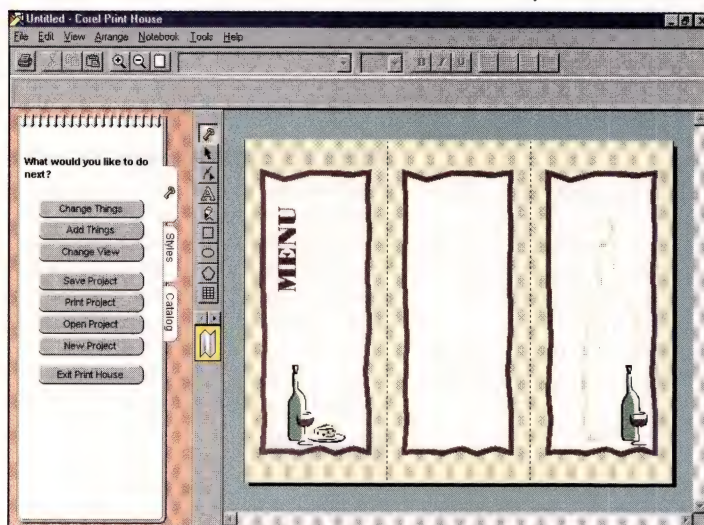


Figure 1. Main screen with a sample 3-part brochure.

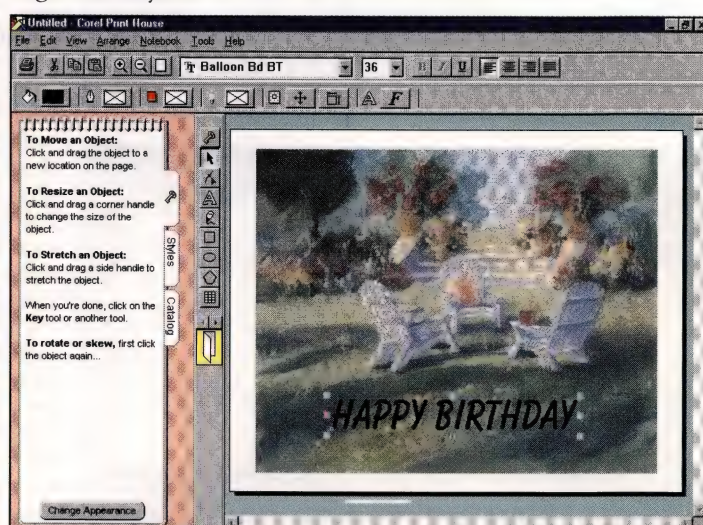


Figure 2. Main screen showing the Notebook Key page (cue cards) and a bitmapped sample card.



like styles, they can be dragged and dropped into a design. However, because the thumbnails are really too small and undefined to see clearly on the screen, it is easiest to first choose items from the user manual and then find the corresponding thumbnails. You can also drag and drop your own creations—logos for example—into a scrapbook.

Wizards can be invoked virtually anywhere. These guide you through tasks such as editing text, adding colour, lines and shadows, via question-and-answer. If you aren't sure how to fold your paper, PH is ready for you, with video folding demonstrations. It is also a step ahead when printing something on double-sided paper—a guide page is printed after the first run through the printer to help you reinsert the paper the right way.

There are four ways to create a design (Figure 4)

- The QuickWay is the easiest and fastest. It walks you through each step, giving you choices from a limited number of samples and letting you type in your personalised messages. Of course, once your project is completed, you can make any changes you wish.
- Start with one of the 900 samples. Use these as they are or as a starting point for your own design.
- Use a PaperDirect template. If you are using PaperDirect paper, this ensures that your design fits the parameters of your chosen paper.
- Create your own design from scratch. The Notebook is there if you need it, and the Wizards are available whenever you want.

You can work on a design in either full colour, greyscale or outlines. Very useful if you will be printing to a monochrome printer. Names and addresses (or other fields) can be recorded in (or imported to) a database called the Namelist, and these can be merged with your design (Figure 5).

The user manual is basically just a catalogue of the clipart, fonts and so on included with the package. Browsing it gives you lots of ideas for your own designs and messages, so if you don't think you have much artistic talent, who knows, you might surprise yourself. Only half-a-dozen pages are devoted to introducing the basics of PH and I couldn't help feeling that I was missing out on some features because of the lack of a proper how-to manual. The Wizards and the cue cards on the Key page guide you through the basics but don't cover more advanced topics. The online help is fairly comprehensive, but if you don't know something is there in the first place, you may not look for it.

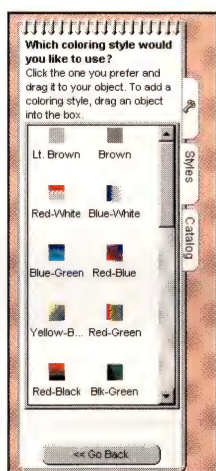


Figure 3. The Notebook showing the Style tab, colouring page.

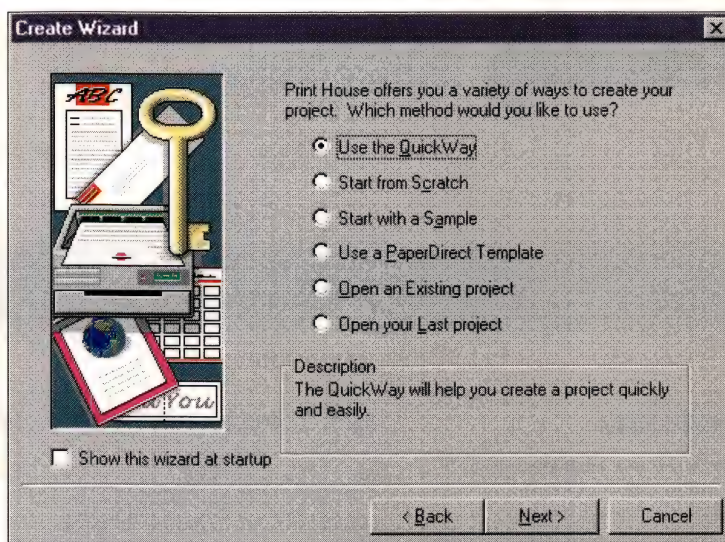


Figure 4. The Create Wizard—use it to start a new project.

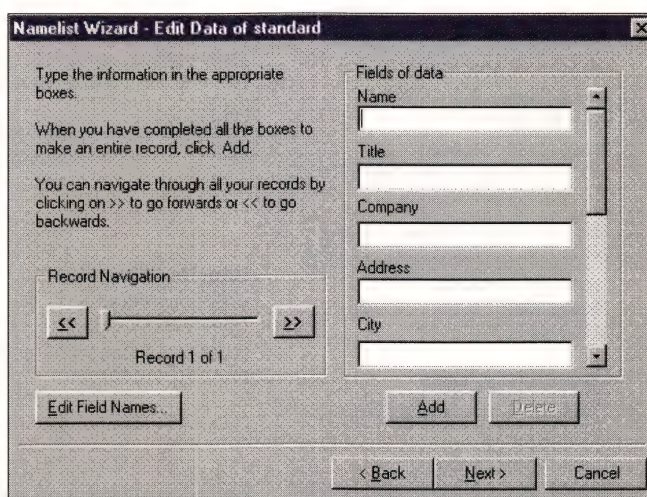


Figure 5. The Namelist Wizard—use it to create or edit your name/address database.

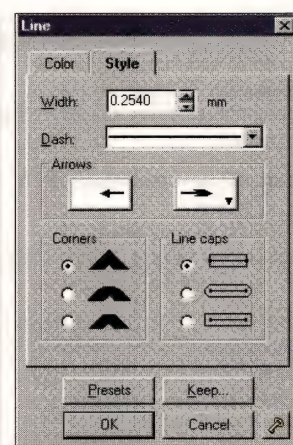


Figure 6. Line properties dialog; the key in the bottom right of the figure invokes the Line Wizard.

## The drawing tools

The range of drawing tools and features are not as extensive as those in more full-featured packages, but should be sufficient for most purposes. Apart from the standard Text, Line (including freehand), Ellipse, Rectangle and Polygon tools, there is a Shaper which manipulates Bezier control points. A basic Table tool won't let you do anything fancy but is there if you need it. Objects can be rotated, flipped, grouped, layered, combined, broken apart or converted to curves. There is even a built-in spell-checker.

The properties of objects, such as colour, line style, shadow and so on can be easily set through a property toolbar if you don't want to bother with the Notebook (Figure 6). One very neat feature is a fader which lets you change the relative colours of a selected object by moving a slider.

## Is it worth it?

Need you ask? A resounding **yes!** PH is great fun and so easy to use it is very difficult to go wrong. The worst thing about it, though, is that you'll probably find you are wasting lots of time creating designs just for the heck of it!

## Minimum system requirements

IBM 486DX or compatible, 8 MB RAM, Windows 95, CD-ROM drive, VGA card and monitor, mouse or tablet. Requires either 2 MB or 15 MB hard disk space, depending upon whether you elect to run the program entirely off the CD-ROM, or install partially to your hard disk. Either way, the CD must be in the drive.

## Availability and cost

At the time of writing, PH was available at an introductory price of around \$45 while stocks last; the usual retail price will be \$129. It is available from Harvey Norman, Dick Smith, Brashs, City Software, Software Today and other Corel retailers.



# Training courses



APRIL - JUNE 1996

## Applications

### Access v2.0 BASIC programming: \$75

Paul Palcsek

Two 2.5-hour sessions:

6.30 pm–9.00 pm, Thu 23 May,  
Wed 29 May, Enrol by 16 May

An advanced course introducing you to programming Access using the BASIC language.

**Prerequisites:** The Access Macros course or extensive experience with Access Macros.

### Access v2.0 forms and reports: \$75

Paul Palcsek

Two 2.5-hour sessions:

6.30 pm–9.00 pm, Mon 22 Apr,  
29 Apr, Enrol by 16 Apr

How to create forms and reports.

**Prerequisites:** The four-session Starting Access course or experience with Access and Windows.

### Access v2.0 queries: \$75

Paul Palcsek

Two 2.5-hour sessions:

6.30 pm–9.00 pm, Mon 4 Apr, 11 Apr, Enrol by 29 Mar

How to create queries.

**Prerequisites:** The four-session Starting Access course or experience with Access and Windows.

### Database design using Access v2.0: \$75

Paul Palcsek

One 5-hour session:

10.00 am–4.00 pm, Sun 5 May,  
Enrol by 29 April

How to create databases with multiple tables, keys and referential integrity

**Prerequisites:** Experience with Access and Windows.

### Quicken for small business: \$180

Viv Martin

Four 3-hour sessions:

6.30 pm–9.30 pm, Mon 03 Jun,  
10 Jun, 17 Jun, 24 Jun, Enrol by  
28 May

Bookkeeping, record keeping, producing reports for accountants.

**Prerequisites:** Basic Windows experience assumed.

### Starting Access v2.0: \$150

Paul Palcsek

Two 5-hour sessions:

10.00 am–4.00 pm, Sat/Sun 1/2 Jun, Enrol by 24 May

Introduction to Access. Covers tables, database design, queries, forms and reports.

**Prerequisites:** Experience with Windows v3.1.

## Communications

### Communications workshop: \$60

Doug Brooke

One 4-hour session:

10.00 am–4.00 pm, Sat 13 Apr  
Enrol by 5 Apr

Accessing and using the BBS, configuring a communications program, problems and diagnoses, networks, netmail, file transfers.

**Prerequisites:** None.

### Setting up Telemate and Telix: \$45

Doug Brooke

One 3-hour session:

10.00 am–1.00 pm, Sat 4 May  
Enrol by 26 Apr

Designed to help novices set up and use Telemate and Telix. Includes troubleshooting and useful commands.

**Prerequisites:** Command line computing knowledge preferred

### Starting communications: \$120

Doug Brooke

Four 2-hour sessions:

6.30 pm–8.30 pm, Fri 3 May,  
10 May, 17 May, 24 May  
Enrol by 26 Apr

Hardware and software requirements, modems, remote control, file transfers and other matters.

**Prerequisites:** Some knowledge of simple DOS commands preferred.

### Using Blue Wave: \$45

Toby Bainbridge

One 3-hour session:

6.30 pm–9.30 pm, Thu 30 May  
Enrol by 24 May

Basic setup, hints, tips and configuring Blue Wave communication offline reader.

**Prerequisites:** Must have done one of our Comms workshop or Starting Comms.

### Using the Melb PC BBS: \$45

Barry McMenomy

One 3-hour session:

6.30 pm–9.30 pm, Fri 19 Apr,  
Enrol by 12 Apr

One 3-hour session:

6.30 pm–9.30 pm, Fri 31 May,  
Enrol by 24 May

One 3-hour session:

6.30 pm–9.30 pm, Fri 28 Jun,  
Enrol by 21 Jun

Basic look at the Melb PC BBS with hints and tips on using all the various menu items. Also covers initial log ons, using the message areas, netmail to other systems. Fidonet and BBS etiquette.

**Prerequisites:** Must have logged onto the Melb PC BBS

## Internet

### Effectively using Netscape and FTP: \$60

Lynn Pollock

One 4-hour session:

1.00 pm–5.00 pm, Sun 14 Apr,  
Enrol by 8 Apr

One 4-hour session:

1.00 pm–5.00 pm, Sat 15 Jun,  
Enrol by 7 Jun

Complete discussion and demonstration of all aspects of the latest version of Netscape.

Configuring new helper applications and tips and tricks to optimise your Netscape usage. Explanation and demonstration of locating files using Archie and downloading with FTP. Note: This hands-on course has *only one* computer connected live to the Internet.

**Prerequisites:** Intermediate level user of the Melb PC Internet service. Good working knowledge of the Windows environment.

### Offline newsgroup readers and list servers: \$60

Lynn Pollock

One 4-hour session:

1.00 pm–5.00 pm, Sat 11 May,  
Enrol by 3 May

One 4-hour session:

1.00 pm–5.00 pm, Sat 22 Jun,  
Enrol by 17 Jun

Full detailed explanation and demonstration of all Free Agent features including binary files, e-mail, posting articles, netiquette and configuration of preferences. Discussion and investigation of procedures for using mailing lists and list servers. Note: This hands-on course has *only one* computer connected live to the Internet.

**Prerequisites:** Intermediate user of the Melb PC Internet Service. Good working knowledge of the Windows environment.

## Notes

To book or enquire about a course, telephone the office on (03) 9699 6222, 10 am – 3 pm, weekdays.

Courses are held at the group's premises, usually in the training

room. Some courses are held in the SIG room, so check when you arrive.

The address is:

66 Albert Road  
South Melbourne.

There is usually plenty of parking available nearby in the evenings.



**Upgrading the SLIP kit and adding new clients:** \$60  
*Lynn Pollock*  
One 4-hour session:  
1.00 pm–5.00 pm, Sun 12 May  
Enrol by 6 May  
One 4-hour session:  
1.00 pm–5.00 pm, Sun 23 Jun  
Enrol by 18 Jun

Hands-on upgrading of various items in the SLIP kit. Adding, configuring and testing new clients for the Internet. Tips and tricks to obtain greater benefit from your Internet time. Note: This hands-on course has only one computer connected live to the Internet.  
**Prerequisites:** Intermediate level user of the Melb PC User Group Internet service. Good working knowledge of the Windows environment.

**Using the Melb PC Internet service:** \$90  
*Lynn Pollock*  
Two 3-hour sessions:  
9.00 am–12 noon, Sat/Sun 11/12 May, Enrol by 3 May  
Two 3-hour sessions:  
9.00 am–12 noon, Sat/Sun 22/23 Jun, Enrol by 17 Jun

Hands-on individual installation and configuration of the SLIP kit. Explanation and live connections to the Internet to demonstrate the various items. Discussion on netiquette and how to obtain help when using Melb PC Internet service. Note: This hands-on course has only one computer connected live to the Internet.  
**Prerequisites:** Experience with modems and the Windows environment. Suit people about to install the SLIP kit or novice users of the Internet.

**What is the Internet?:** \$45  
*Lynn Pollock*  
One 3-hour session:  
9.00 am–12 noon, Sun 14 Apr, Enrol by 8 Apr  
One 3-hour session: 9.00 am–12 noon, Sat 25 Jun  
Enrol by 7 Jun  
An overview of the Melb PC Internet service. Demonstration of the SLIP kit and an explanation of the various components. Discussion of the hardware items involved. Note: This is not a hands-on course but live Internet demonstrations will be shown.  
**Prerequisites:** None.

**Operating Systems, Diagnostics, Hardware**

**Archiving files:** \$45  
*Peter Freeman*  
One 3-hour session:  
6.30 pm–9.30 pm, Thu 27 Jun  
Enrol by 21 Jun  
The similarities between all the archivers, command line archiving and unarchiving, compressing files for backups, and more.  
**Prerequisites:** A knowledge of the DOS directory structure is assumed

**Backup and disaster recovery:** \$45  
*Tom Coleman*  
One 3-hour session:  
6.30 pm–9.30 pm, Thu 9 May  
Enrol by 3 May  
Guides students into preparation of panic disk to cope with start up problems and failure of hardware and software.  
**Prerequisites:** Understanding of simple computer terminology. Experience with basic DOS and the computing environment.

**Command line computing:** \$120  
*Tom Coleman*  
Three 3-hour Sessions:  
6.30 pm–9.30 pm, Wed 12 Jun, 19 Jun, 6.30 pm–8.30 pm, 26 Jun  
Enrol by 5 Jun  
Covers techniques and guidance for users who have a grasp of the fundamentals of DOS, file types, directory structure, and the meaning of basic computer technology.  
**Prerequisites:** Must be familiar with basic DOS commands, and directories. Students must have frequent access to a DOS-based PC outside of class.

**Computer basics:** \$120  
*Mary Levens*  
Four 2-hour sessions:  
6.30 pm–8.30 pm, Tue 14 May, 21 May, 28 May, 4 Jun  
Enrol by 8 May  
A guided discovery of DOS-based computing. Files, directories, hardware and software.  
**Prerequisites:** No prior computing experience required. Students must have frequent access to a DOS-based PC outside of class

**How to buy a computer:** Free  
*Tom Coleman*  
One 3-hour session:  
6.30 pm–9.30 pm, Fri 10 May  
Enrol by 3 May  
10.30 am–1.30 pm, Sun 26 May  
Enrol by 20 May  
One 3-hour session:  
6.30 pm–9.30 pm, Fri 28 Jun  
Enrol by 21 Jun  
What a computer does, what the jargon means, buying advice, tips and traps, no sales talk.  
**Prerequisites:** None.

**Memory management:** \$45  
*Tom Coleman*  
One 3-hour session:  
6.30 pm–9.30 pm, Wed 22 May  
Enrol by 16 May  
Techniques for maximising your PC's available memory, CONFIG.SYS commands, diagnostics.  
**Prerequisites:** Basic DOS skills.

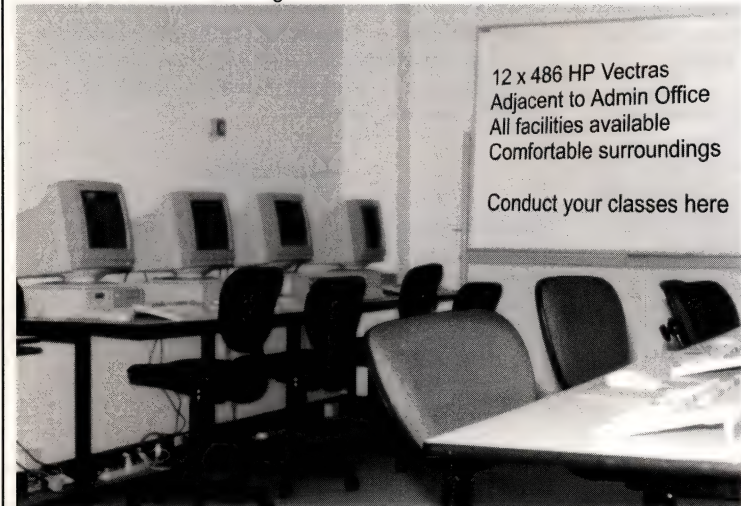
**More Windows v3.1: 8 hours:** \$120  
*Barry Fredrickson*  
Four 2-hour sessions:  
6.30 pm–8.30 pm, Mon 6 May, 13 May, 20 May, 27 May, Enrol by 30 Apr

Windows 3.1 for people who are currently using Windows and know what directories are. Contents: Program Manager, File Manager, running DOS and multiple programs, etc.  
**Prerequisites:** Students should have some Windows experience.

**Virus protection:** \$45  
*Tom Coleman*  
One 3-hour session:  
6.30 pm–9.30 pm, Thu 2 May  
Enrol by 26 Apr  
Virus avoidance, detection and removal, viruses explained, recognising viruses, safe housekeeping practices.  
**Prerequisites:** "Computing Basics" course or an equivalent knowledge of computing.

**Need a Training Venue?**

The Melbourne PC User Group Hewlett-Packard Training Centre is available for rental, on a casual or regular basis, when not in use for Melb PC internal training courses.



For further information  
Contact:

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PC User Group  
Administration  
Office  
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# CLUB PRESIDENT'S UPDATE

... continued from page 5

Those who ignore those warnings will lose their privileges, and will face suspension, or will have their membership rescinded.

I expect the membership to back me in this stand. My advice to all of you is to do something about these pygmies if you want to continue to attract the sort of leadership that has turned this club around, and given you so many valuable services. If you do not, you will richly deserve the consequences of being led by the pygmies.

This is not an attempt to gag criticism. We continue to welcome fair, honest and open criticism. We must have debate, because only by debating issues can we hope to overcome our mistakes and lack of vision.

But prolonged, vicious, unfounded assaults on the integrity of volunteers seriously damage the group. We have listened to mostly the same old voices for years now, opened the books, opened the meetings, opened everything. There is nothing to hide. But it wastes time when office staff are continually forced to plough through old records, while the same tattered old warrior demands to peruse the minutes. It's pointless, and it damages us.

Most members aren't interested in the running of this group. I was amused, for instance, but not surprised, when at the last monthly meeting, one of the few times we ever air club affairs, several members complained that the special general meeting made them late, and that they came along to see a presentation, not to hear about the club. They don't appreciate, of course, that the presentations happen only because some of us don't know what it means to have an early night, and we do it because the club means something to us.

## Internet and other matters

Some members might have overlooked the fact that they do need to fill in the form for the new Internet service. You will find it in

the March *PC Update* or can obtain one at the office.

Other members apparently haven't read the panel on the Dial Help page which points out that the service is offered only during certain hours, by people who are not paid, and have the right to a decent night's sleep and some enjoyment of life. They are being rung at 2 o'clock in the morning, which is something I find quite incredible.

The hours, where a volunteer indicates he will accept daytime calls, are 9 am to 5 pm, and in the evening 6.30 pm to 9 pm. But if they're watching Melrose Place, or having a meal, please understand if you're asked to call back.

And if you encounter an answering machine, please leave your phone number.

A reminder that on Good Friday the BBS and the Internet will again be taking donations for the Royal Children's Hospital Good Friday Appeal. Last year we raised about \$7000, and we're hoping with your help, given our increased membership, to break \$20,000 this year.

A survey will be sent out to a random sample of 2000 members, hopefully by April. It will be in two parts, one on your views of *PC Update*, the other on general membership issues.

We have a desperate need to update our knowledge of the club membership, both to get a better idea of what you need, and also to make our magazine more attractive to advertisers. We are losing increasingly large sums of money on *PC Update*, and the marketing team, under Michael Douman, is working very hard indeed, on projects like the survey, to turn that around. We do not, incidentally, ever make names available to advertisers. There will be some prizes for prompt return of the surveys.

If you can't work for the group—and I understand that a lot of people have genuine reasons for not being able to work—at least stand up and be counted. And not just in the survey. □

(ADVERTISEMENT)

## Melbourne PC User Group

Australia's largest volunteer-run computer user group, Melbourne PC User Group Inc (Melb PC) has reached the point where it needs some professional staff to assume responsibility for certain core functions to provide members with quality services. User groups are run on the motto of "Users Helping Users," so most of the activities are organised by volunteers. They require proactive support from a central problem-solver who can help them complete their activities. The first position to be filled will be that of Chief Executive Officer (CEO). In due course additional staff will be employed.

### The Position

Under broad direction from the Melb PC committee and with the help of volunteers and other staff the CEO will undertake all necessary tasks to achieve the group's mission. This will involve contact with members, the press, other organisations, and the computer industry. Activities will include promoting the group and its award-winning magazine to potential members, advertisers and benefactors. There will be an element of internal marketing to members. Most of the members' activities occur in the evenings, so some after-hours presence is involved, as is some infrequent interstate and international travel.

The position has key responsibility for the day-to-day management of operational issues, staff management, financial management/budget preparation, community and industry liaison, public relations, and providing timely advice to the committee.

### The Candidate

The successful candidate will have held a senior role in a nonprofit institution or computer industry marketing. Computer literacy is essential, as is an enthusiasm for using computers for solving daily problems, particularly databases and electronic mail. Excellent oral and written communication skills are necessary to represent Melb PC eloquently and persuasively. The CEO will take an active interest in all volunteer activities and help to define future growth.

### Benefits

Following an initial trial period, a 3-year performance-based contract with an attractive remuneration package will be negotiated with the successful candidate.

Please contact the Secretary, Stan Johnstone, in strict confidence on

(03) 9578 3091,  
[stanj@melbpc.org.au](mailto:stanj@melbpc.org.au),

or at

PO Box 283  
South Melbourne VIC 3205.



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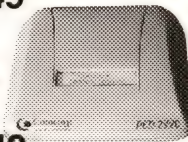
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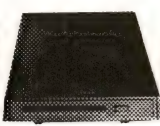
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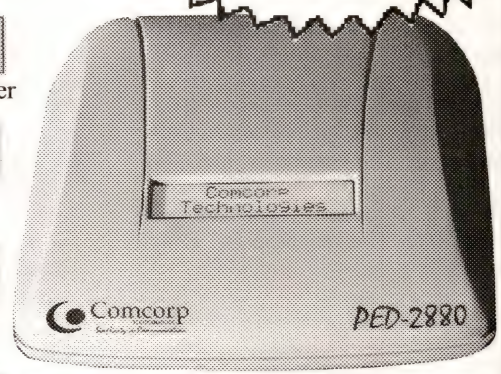
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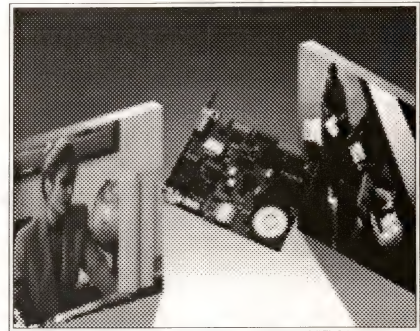
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### April Tech Tip

#### Win95/Netscape Enhancement.

If you are having some trouble with Win 95 and or Netscape or if you want to upgrade either of them - visit <http://www.windows95.com>



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# The shareware curriculum



## COMPUTING IN EDUCATION

John Poulianakis

In Victoria's Curriculum and Standards Framework Statement for Information Technology, there are four key terms which define the essential focus of any course. These are *investigating*, *designing*, *producing* and *evaluating*. The emphasis throughout is on exploring the diversity and range of what is available in information technology (IT). The question is, "How to gain access to a wide range of materials?" Few students and schools can afford the latest machines and software, not to mention site licenses for putting the software on many machines. The answer is to be found in shareware.

Shareware is an important and exciting field that has many opportunities for educational use within and beyond the normal computer curriculum practised at many schools. It has many benefits for anyone who wants to extend his or her computer knowledge including teachers, school administrators and students. For the school administrator and teacher, it offers a wide range of inexpensive software, thus minimising the school's expenditure while maximising students' learning. And there is a wide range of shareware available for all models of desktop computers, especially PCs. For the student, the major benefit from shareware is that it can generate not only interest, but will inspire a desire to explore far beyond the bounds of normal subject expectations. Therefore, students will adapt to exploration and autonomy as an attitude towards computing and computer applications. That is to say,

learning about computers =  
exploration = fun = play

It is through playing with software, that students may dive into a system of thought and, as they find their way around it, discover a great many things which are applicable to other software and IT in general. Thus, IT literacy may develop beyond the range of the teacher as information giver and the student as information receiver.

### Types of activities

The variety of shareware available and the fact that it can be tried without payment means the shareware curriculum generates many activities not possible, or severely

restricted within the normal educational context. Primarily, we may refer to a number of basic activities which can be performed across all software types in shareware which all lead to a critical awareness of the many aspects of IT.

- **Comparison:** The student is in a position to compare various products which claim to do the same or similar things. This would lead to an ability to appreciate the differences and learn to see the limitations in various programs.
- **Software Development:** Through the process of comparison, the student can also see and appreciate the evolution of a software or a software type. For example, older DOS-based shareware can be reviewed, and then some comparable Windows types. Similarly, many shareware programs contain history text that outlines the versions of the package, and indicates the changes and bugs that were found. By the same token, it is possible to have the different versions or editions of the same package and appreciate the evolution that has taken place.
- **Evaluation:** As well as from general evaluation, shareware products of the same intent can be compared, and students may develop criteria for evaluation. In this context, students can rate programs, appreciate features and lack of features, and furthermore, perform critiques in terms of what is lacking in perhaps the best of a particular category.
- **Documentation:** Students may examine documentation as they use the various software, and see from experience what is good and bad documentation. This appreciation can lead to their own documentation writing. Tips and tricks can also be written for their favourite software, especially games.
- **Hands-on approach:** Access to shareware and shareware catalogues naturally leads to the desire to try out and examine many things, rather than merely limiting exploration to the few packages used at school or at home. The more things are tried and explored, the more knowledgeable a student becomes.

**...few schools can  
afford the latest  
software...the  
answer is to  
be found in  
shareware.**

- **Software creation:** There is no shortage of shareware that allows the user to do things. Whether to make a game, edit existing games, create a database, add to an existing database, combine graphics with text, write help files, hypertext, and so on. In other words, the creative aspect is present in abundance for those who wish to explore it, while the amusement aspect is there for the less creative. Either way, using shareware can lead to an interest in finding out and doing more.
- **Individual work:** Shareware means a student can go off in isolation pursuing his or her favourite software or interest in deeper degrees of involvement. Individual projects can be tailor made, since it doesn't matter whether a student own sophisticated or basic equipment, there is much to follow up.
- **Group work:** Group work is also possible since a large project may be taken home if shareware is being used. Students with similar or specialised interest may use group work to follow up on their interests whatever its remoteness from the average students.
- **Program Management Skills:** The skills of program management take on a new importance if a student is busy with the computer, being motivated by curiosity and interest. DOS and Windows suddenly become relevant.



The various ways of transferring files, copying, moving, renaming, attribute identification, taking notes from text and help files on software, become a part of the student's everyday activity. Similarly, in a shareware context, things like DLLs being placed in the Windows system directory, installing and uninstalling, tracking storage, RAM usage, monitoring system resources, and archiving in various formats (i.e. ZIP, ARC, etc.) also emerge as important, slowly leading the student into deeper aspects of the computer's operations. Here are some specific activities that can be developed using the general categories of activity above. There is much to do, and a lot of fun to be had.

## Working with games

Games are a good place to start. These are after all, a major attraction for students, and in fact many people are first enticed by the audio-visual world of games. Games, however, can lead to many things: Basic activities may be seen as:

- Analysing the different genres of games and finding examples of each, for example, role playing, simulations, strategy, adventure, arcade, puzzle, and card games.
- Comparing games within specific genres, for example *Doom* vs *Raptor*.
- Seeing how games change through the various versions.

Evaluating and documenting games.

- Making clear explanations of how to play, from an introductory and experienced user perspective.
- Writing tips and tricks for various games.
- Using level editors and other utilities to customise existing games.

One doesn't have to be a game enthusiast but an educator to realise that such additions take game players out of the realms of passive participant and put them in the driver's seat, necessitating an involvement with the computer and its workings way beyond normal game players. Games as a critical field has a lot to offer both at simple and more sophisticated levels and as such should not be underestimated; they can trigger imaginative and analytical skills if they are pursued in a creative way.

## Working with databases

Databases are especially interesting when they have some personal relevance, for example when they involve the family and take into account the interests of the children:

- Compare one or more databases which do the same thing.
- Use a database for student's or parent's information (eg., recipes, home inventory, video collection, or as a personal information manager).

- Compile a class database on types of computer games; design own databases with designated variables.
- Use an existing database which has variables already in it, for example a gardening database.
- Determine the variables of a specific database prior to looking at it.
- Look at the types of subjects that can be put into databases.
- Test files made from other programs to see if they can be used by a database (export and import).
- Write documentation for a database using screen capture.

## Working with graphics

The use of graphics evokes a large number of factors, from different types of graphics formats, to viewing and using these formats. Hence, with shareware, we could:

- Distinguish between the various graphic formats (.PIX, .GIF, .TIF, CLIP).
- Convert one type into another.
- Assess the differences in size of different graphics formats.
- Compare different graphics viewers and slide-show capabilities.
- Import and manipulate graphics in documents or presentations, such as home pages.
- Morph graphics.
- Try graphics and draw programs.

## Using files

Apart from the general program management skills that come from using shareware, an understanding of file extensions is a useful and necessary focus if one is using many different types of files and programs, and if one is wanting to import and export files into and out of programs. The following skills could be cultivated:

- Identifying file extensions.
- Associating file extensions through file manager.
- Making file extensions readable through .WRI and .TXT extension.
- Changing one type of extension to another.
- Identifying and changing non-windows help files to be read.
- Printing text/help files through extension changing.
- Identifying and executing .ZIP (and other compression) files.
- Using and setting up, unzipping/zipping utilities (ie., Winzip, and Dragzip).
- Comparing different archiving systems.

## Evaluating shareware CD-ROMs

Students or schools that have a CD-ROM readily available, can access the hundreds of megabytes of software found on

shareware CDs. There is a wealth of learning to be done here. For example students could study the

- Range of menu systems for accessing files
  - Methods of retrieving programs, how they are saved and where they are sent
  - Types of interfaces
  - Studying the shareware industry
- The shareware approach also allows students to reflect upon the shareware industry, and gain insight into various aspects of marketing, distribution and profit. For example they could compare
- Shareware advertisements
  - Different marketing methods (BBS, ads, catalogues, stands, swap meets, etc.)
  - Price structures (per KB, per disk, per program, CD, etc.)
  - Catalogue presentations (with or without pictures, floppy-disk or paper)

## Structure of the shareware course

The integration of shareware into a course can take many forms, depending on many variables, such as the skill and knowledge of the teacher and of course, the initiative of the student since self-extension is what the shareware curriculum is all about.

One could base a whole course on shareware, or a part of a course. The teacher could cover briefly or more extensively each type of application while the students fill in the details by trying and testing through different activities. Alternatively, a number of types of application could be covered, allowing students to spend more time on their favourite type of software.

## The future benefits of the shareware approach

An important benefit from using shareware is the long term aspect. That is, students may become used to looking at shareware and attempting to integrate it into their other studies, and well as their home and hobby applications. This makes for a long term involvement with computers, and an interest in following the computer scene through shareware.

Furthermore, this will benefit the shareware industry, since it both promotes the products and exposes many more people to what the industry has to offer. A generation of students thus may grow up being familiar with this industry.

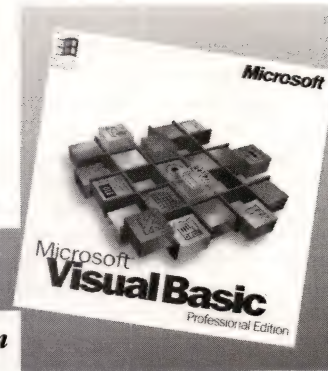
The legal question is also relevant here. Since shareware is to be used as an object of study as well in the trying out different applications, there should be no contravening the legalities of using shareware. Of course, shareware which is going to be used by the school or students on a long term basis should be registered but this is another aspect of learning about shareware. □



# Seeing the Basics

## PROGRAMMING TIPS & TRICKS

Tony Stevenson



**V**isual Basic 4.0, like any other programming language, has its share of tricks, techniques and trips that can save you both time and effort. Let's have a look at what's available.

### For and against the variant data type

A variant data type can hold a variety of data types—numeric, date/time, or string values. However, such flexibility comes at a cost—variant data types require more memory and they are slower (because VB handles any necessary conversions).

### Populating a list at design time

Instead of populating a list box at run time using the `AddItem` method, VB 4.0 allows you to add entries to a list at design time.

After double-clicking the list box control in the toolbox (this puts a list box control in the centre of the form), press function key F4 to bring up the properties. Click on the "List" property, then the down arrow that appears, and start entering the list items. After each item, use the keyboard combination of `Ctrl + Enter` keys to position the insertion pointer ready for the next entry. If you just press the `Enter` key, the box displaying the list items closes.

### Experimenting with the Windows API

The Windows API (Application Programming Interface) is a set of functions that are part of Windows which can be called from your VB

application. It allows you to extend the power of VB. However, if you don't use it correctly, for example, by making a typing mistake, you can hang your application. So when developing your application, make sure that you set the "Save Before Run" option, with or without a prompt (to set it, select the menu options: "Tools", "Options", and the "Environment Tab"). Doing this will ensure that any code that you have entered will not be lost due to a catastrophe.

### The quick way to set a breakpoint

A breakpoint is a location in your code where you want VB to pause your application so you can do some investigating. To set a breakpoint quickly, open the code window, find the line where you want VB to pause, and click it using the right mouse button. When the pop-up menu appears, click on the "Toggle Breakpoint" option. Repeating this process on a line already nominated as a breakpoint will remove the breakpoint.

### A cluttered form?

To preserve screen real estate on a busy form (that is, one with lots of controls) use combo boxes with the "Style" property set to "Dropdown Combo" or "Dropdown List". If you use the latter option, your user can only select an entry from the list rather than enter a new one.

### Word processors and forms

If you want to look at a textual description of a form and the controls it contains, you use a word processor such as Windows 95 "WordPad". When opening a form using WordPad, remember to change "Files of type" from its default setting of \*.DOC to "All Documents", otherwise WordPad will not be able to locate the forms that have a suffix of .FRM.

The reason a form can be viewed using a word processor is that a form is internally represented using ASCII (American Standard Code for Information Interchange). When you look at a form in this way, you will see the VB version number, all the properties of the form and the properties of any controls contained on the form, and all of the code associated with the form.

The flexibility of using a word processor in this way provides you with an easy, flexible and attractive way of documenting your VB project.

However, there is another way of printing the ASCII representation of a form without using a word processor. From the File menu in design mode, simply select the "Print" option. You are then presented with a form containing print options. So for example, you can choose to print the form's image, or a textual description of the form, or the code associated with the form (or all three). You also have the option of printing these to a file for later use.

Unfortunately, there is now no excuse for having a poorly documented VB project!

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## Carriage return and line feed constant

To improve the look and readability of your message boxes, use the VB provided constant "vbCrLf" to insert carriage returns and line feeds at the appropriate places. For example:

```
Dim warningMsg as String

warningMsg = "Be careful!" &
vbCrLf & vbCrLf & "Do not
delete these files" MsgBox
warningMsg
```

Other useful predefined constants are:

- vbNullChar, the Null character
- vbBack, Backspace
- vbTab, Tab
- vbVerticalTab, Vertical Tab
- vbFormFeed, Formfeed.

The VBA (Visual Basic for Applications) library contains these and other constants. To look at this library, use VB's new Object Browser by clicking its icon on the toolbar (or alternatively, by clicking on the menu options "View", "Object Browser"). By using the Object Browser, it is easy to paste objects into your code.

## How to improve response time

You can use VB's form Load statement to load a form into memory, but not display it to the user. Then, at the appropriate time, you can use VB's Show method to make the form appear. You can use such a procedure to improve response times. For example, if one of your forms contains a list box with a lot of entries, you can load that form into memory when your application first starts. Most users are prepared to wait a reasonable time when an application is starting, but they are less tolerant of delay when moving from one form to another in the course of doing their job.

However, be careful using this technique, because any form that is loaded is taking up its share of memory. The required syntax is as follows:

```
Load nameOfTheForm
nameOfTheForm.Show
```

To see the effectiveness of using a Load statement, set up a sample application containing two forms (Form1 and Form2) as follows.

On the first form, have three command buttons with the captions:

- "LoadShow"
- "Load"
- "Show"

The second form only contains a list box.

For Form1, put the following code into the command button's click events:

```
Private Sub cmdLoadShow_Click ()
Screen.MousePointer = vbHourglass
Form2.Show
Screen.MousePointer = vbDefault
End Sub

Private Sub cmdLoad_Click ()
Screen.MousePointer = vbHourglass
Load Form2
Screen.MousePointer = vbDefault
End Sub

Private Sub cmdShow_Click ()
Form2.Show
End Sub
```

Note the use of the VB defined constants "vbHourglass" and "vbDefault" for setting the mouse cursor to the familiar Windows hourglass and default shapes respectively.

In the Form2 load event, put in the following code to populate the list box with the numbers from one to 10,000.

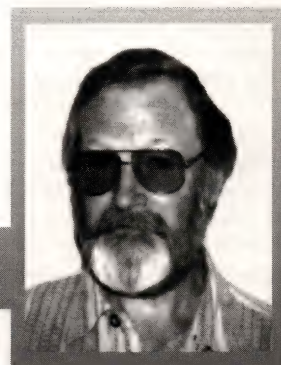
```
Private Sub Form_Load ()
Dim i as Integer
For i = 1 to 10000
List1.AddItem Str$(i)
Next i
End Sub
```

This sample application employs a simple technique that can be used to noticeably alter the user's perception of your application. □

# The year 2000 and your computer

## FUTURE SHOCK

Christopher Canham



**W**e all use the standard DD/MM/YY format, knowing that 01/01/96 means 1 Jan 1996. When we come to use 01/01/00 we will know that means 1 Jan 2000, but will your software? Computers only recognise values: 96 is not 1996. By the same token 00 is zero! Now try setting your computer's date to 01/01/00—what did you get?

One can only hope the powers that be give serious thought to the forthcoming year 2000. No, I'm not referring to the gloom-and-doom prophecies that will no doubt surface. This is about the dilemma all software manufacturers are facing right now, or at least they should be!

For years we have had software that uses only two digits. Programs that work with two-digit date fields will read the 00 in the year 2000 and may interpret it as

1900, creating major problems when 2000 arrives, if changes are not made soon.

Woe betide any program that is date-sensitive, especially applications that make monetary forecasts. These include mortgages, financial forecasting, insurance policies, contracts, leasing, and customer records, to mention only a few.

It has been estimated that more than 90 percent of applications used by most large organisations will be affected. Most managers are unprepared for the event, according to some studies and are avoiding the date issue. That situation can also filter down the line to SOHO and PC users.

Many people will wait until the year 1999 to do something about. Yet in 1995 IBM stated that if users had not already started planning for how their systems will respond for the year 2000, it may be too late.

Does that mean that computers will all pack up and refuse to work? For the answer to that question we will have to wait and see. But as one wise person was heard to say—all the computers and programs being used now will be out of date and obsolete by the year 2000. So we can start all over again by buying new systems. Anyone interested in my old Pentium 100, 6 GB HD 32 MB RAM with all mod cons?

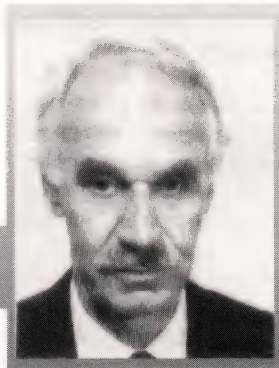
Imagine the confusion when the year 2000 arrives. Fear not! IBM have come to the rescue with a document called *The Year 2000 and two-digit dates: A Guide for Planning and Introduction*.

If you are interested, it is on the www at <http://www.software.ibm.com> But then again—didn't someone say that the year two thousand would be the end of the world? So what are we worrying about? □



# Tools for the Web: Acrobat, Java, and Virtual Reality

## BOOK REVIEWS



Major Keary

**R**emarkable advances in software development are making the Web a more versatile and colourful environment. The graphical interface has been the key, bringing about a dramatic shift from text-based readers to browsers that now enable sophisticated imaging, animation, choice of font styles and sizes, and an increasing level of user interactivity.

### Adobe Acrobat

Even though not designed for the purpose, *Adobe Acrobat* has proved to be a useful tool for Web publishing. Its advantage over HTML is that the creator of a document has control over how end users will see it. Apart from other features, its portable document format (PDF) can resist alteration—which has security implications—but end users can, with *Acrobat Exchange*, attach hypertext links to PDF files, move pages from one document to another, and add annotations.

Adobe publishes various software for creating PDF files, including one (*Distiller*) that converts PostScript files to PDF format, and some DTP and word processing and DTP packages now offer output to PDF.

Acrobat files will be seen more frequently on the Internet at large and in other electronic media (such as publishing documents on CD). A particular application is publication of financial information where tables and charts are an essential element. It is a technology that should be studied by anyone with a serious interest in creating high class electronic documents that will retain DTP quality, especially where they contain illustrations, graphs, tables, or images. PDF viewers can be found at <http://www.adobe.com/Acrobat>.

An excellent account of the Acrobat system is contained in *Acrobat 2.1—Your Personal Consultant*. It describes the various Adobe applications and how they can be used with leading DTP and word processing packages. It covers viewing, integrating *Acrobat* with other applications, creating PDF documents, the use of *Exchange* and *Distiller*, searching and indexing PDF documents, conversion of scanned documents to PDF, and a range of available *plug-ins*.

There is also information about software development kits available from Adobe ftp sites. A very good reference for application developers and anyone with a serious interest in electronic publishing.

Roy Christmann:

*Acrobat 2.1—Your Personal Consultant*

ISBN 1 56276 336 9

Published by Ziff-Davis

396 pages

RRP \$49.95.

### HotJava

*Java* and *HotJava* are two names more likely to have come to the notice of Web users, largely because of media excitement. *Java* is the name of a programming language developed by Sun Microsystems; *HotJava* is the name of the software that makes *Java* happen.

At the time of writing not all platforms are supported, but ports for Windows 95 and Macintosh Operating System 7.5 are close to release; others are being developed for Amiga, NeXT, and Linux. Netscape is integrating *Java* into its browser—check with their home page (<http://home.netscape.com>) for the latest information. Other sites where you will find information about the progress of *Java* are, <http://www.microsoft.com> (for Win 95 port), <http://www.yaboo.com/Computers/PCs/Amiga/>, <http://www.apple.com>, and <http://java.sun.com/porting.html>. Information about *Java* sites and how to download *HotJava* can be found at <http://java.sun.com/installation.html>.

*Java* is not a replacement for HTML; it is invoked from within Web pages using a special HTML tag that causes the user's browser to download and execute *Java* programs. They are called *applets* and can support animation and interactive features.

HTML gives the appearance of being interactive because hypertext links produce a *magic carpet* effect as they send the user off to this site and that. In fact the interactive capacity of HTML browsers is one-sided; the server calls the shots, so to speak. *Java* will enable client-side interactivity, which has important implications for educational use of the Web. Another important

feature is that *Java* can, as Mark Pesce observes, provide "the ability to create an object that behaves similarly on different computers" (Mark Pesce: *VRML Browsing & Building in Cyberspace*).

If you want to know more about *Java* and *HotJava* a good introduction that explains how *Java* works and what one can expect of it is:

John December: *Presenting Java*

ISBN 1 57521 039 8

Published by Sams.net

207 pages

RRP \$34.95

### VRML

Virtual Reality Modeling Language (VRML) is another development that will change the way we see images on the Internet. Yes, I know your dictionary says *modelling* but *modeling* is the American usage, cited for those who may want to use the full term for a string search.

The *home* of VRML is the San Diego Supercomputer Center (SDSC) where a VRML research and development team works. SDSC is described as "The Official VRML Repository" and can be found at <http://sdsc.edu/vrml/>, the official VRML standards site is at <http://www.vrml.org/>, and one can subscribe to the VRML mailing list by sending e-mail to [info-rama@wired.com](mailto:info-rama@wired.com) with "subscribe [www-vrml<sender's e-mail address>](mailto:www-vrml<sender's e-mail address>)" in the message body (leave the subject blank).

First, VRML does not mean that *virtual reality*, as most people understand or perceive it, is now on the Internet. The creators of VRML have chosen the term to describe what is essentially static 3D imaging achieved with sophisticated computer art techniques, such as Phong shading. The illusion of depth in computer-generated images can be quite impressive and makes the flat pictures we have seen on the Web look just that: flat. VRML enables the creation of 3D scenes within the Web home-page environment. We can expect to see some kind of animation as VRML and *Java* come together; given the pace of development that may not be so far away.



## VRML Browsing & Building Cyberspace

A prime mover in the creation of VRML, Mark Pesce, has written about the new program, describing its evolution, how it works, and how VRML browsers are used.

A substantial part of the book is a VRML primer, starting off with a discussion of 3D graphics, then going on to cover VRML at three levels: introductory, intermediate, and advanced.

VRML is a computer language that describes scenes, in much the same way as *PostScript* describes pages, and—like *PostScript*—the files are written in ASCII. VRML files are run through a *parser* that converts the ASCII file “into a set of objects that the computer ... (can) understand and manipulate”.

Part 3 describes a project, building a virtual house. The planning stages are described, including design, sampling, construction, testing, and publishing. The VRML code was to have been included on a companion CD, but for some reason missed the bus. However, the code can be obtained from <http://www.mcp.com/newriders/>; look out for *Project 188*. There is more VRML-related material in the multimedia area of the New Riders site.

Part 4 discusses publishing, describes the structure of a VRML browser, outlines a style guide, and talks about the future of VRML. A well written and comprehensive resource for those who want to understand VRML.

The companion CD has a lot of useful software (including VRML browsers and authoring tools) as well as extensive documentation.

Mark Pesce:

*VRML Browsing & Building Cyberspace*  
ISBN 1 56205 498 8  
Published by New Riders  
424 pages plus CD  
RRP \$54.95

## The VRML Sourcebook

Another important VRML title, just released, is *The VRML Source Book*. The three authors are each employed at SDSC. Andrea Ames specialises in technical communications and is involved in creating information for online interactive multimedia and the Web; David Nadeau is a 3D graphics expert and co-leader of SDSC's VRML research and development team; and John Moreland is also part of the team.

This is a professional reference in the sense that it comes to the subject quickly and deals with its topics in a manner that one expects of a text for professional and technically-competent users. The material is presented in technical language, but without obfuscation or jargon.

A level of knowledge sufficient to grasp explanations of necessary technical terms and concepts is assumed. However, it is suitable—indeed, designed—for a wide audience: computer hobbyists and enthusiasts who “like to fiddle with interesting technology”; technical and non-technical artists who like to create graphics; games hobbyists and enthusiasts who create their own levels; and technical experts and application developers. The preface contains brief, but good advice about coming to grips with VRML for hobbyists and enthusiasts.

An introduction to VRML, discussion of key concepts, and use of VRML's pre-defined shapes (cube, sphere, cylinder, and cone), is followed by a description of how those *primitives* are used, manipulated, grouped, shaded, and all the other things necessary to create realistic (and surrealistic) images. The progression is logical and each item, so to speak, is illustrated by a graphic representation or screen capture and the VRML code that produced it. Those who want to know about advanced techniques for lighting and shading, for example, will find all the information they need here.

Even though VRML provides sophisticated lighting controls, VRML shapes do not cast shadows—a complex operation that does not lend itself to interactive presentations. It is, however, possible to create artificial shadows to enhance the sense realism.

The book contains a very extensive library of routines that can be applied to VRML Web pages. VRML is a much easier way to achieve graphical effects that, hitherto, have been largely the province of professional computer artists using high-end systems. Those who buy the book are able to download the code examples from either a Web or ftp site.

This a valuable technical reference for professional developers and informed enthusiasts. I suspect VRML will find wider application in the 3D imaging field, in which case *The VRML Sourcebook* will be an essential reference.

Ames, Nadeau, and Moreland:

*The VRML Sourcebook*

ISBN 0 471 14159 3

Published by John Wiley & Sons, Inc.  
650 pages  
RRP \$59.95

## Digital Design Media

I have reviewed this book before, but mention it here because anyone serious about 3D imaging should at least be aware of a useful resource for VRML developers. It is written for design professionals and students, particularly those who want to establish a firm foundation of theoretical knowledge. Professional developers who want to take advantage of the VRML environment, especially for architectural applications (whether to demonstrate the features of a planned structure, or to create a VR *walk-through* of, say, a museum) should consider this for their library.

Mitchell and McCullough:

*Digital Design Media* 2nd edn.

ISBN 0 442 01934 3

Published by Van Nostrand Reinhold  
494 pages  
RRP \$59.95

□



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The Microsoft TechNet CD is a monthly CD-ROM containing about 100,000 pages of information on Microsoft database products, operating systems, and desktop applications. Its audience includes support professionals, systems integrators and administrators, and MIS managers. You need TechNet if you support or educate end users, administer networks or databases, create automated solutions, or evaluate and recommend information

technology solutions. Now, for the first time you can purchase a single copy of Technet which is priced attractively for the PC enthusiast or small office.

### How to use

TechNet provides a full-text Boolean search front end as well as a tree-like Table of Contents. For simple searches you can browse through the Table of Contents. Next, you can narrow your

search further by browsing specific categories.

To find material on a concept that is "somewhere" on the CD-ROM, you use the full-text search engine. For example, you get a "SHARE.EXE" error and want to look for a technical note on it. You can find what you want by matching a text string such as "SHARE.EXE". For more elusive answers you need to know how full-text Boolean searches work and how the search engine works within TechNet.

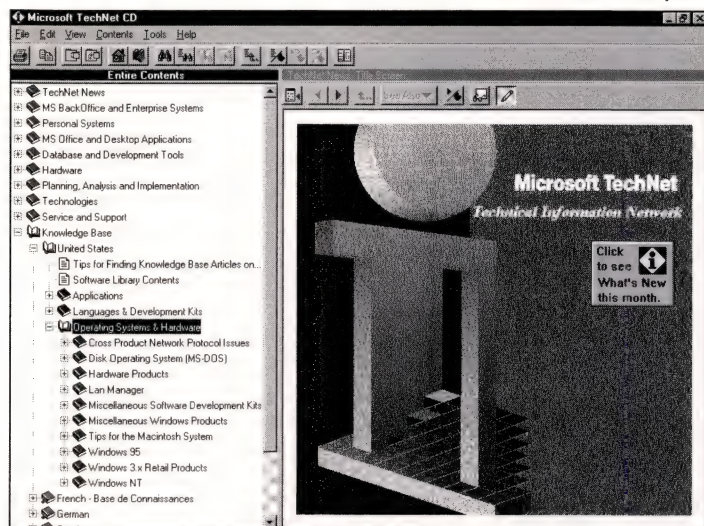


Figure 1. Getting into action with TechNet.

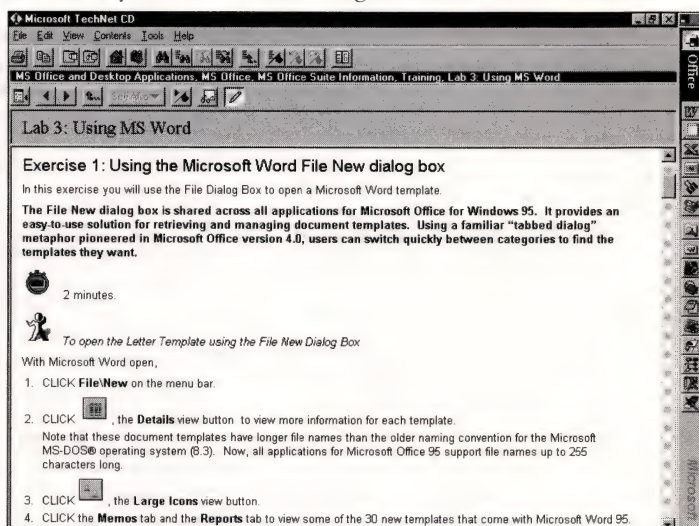


Figure 2. Example of MS Office training material.

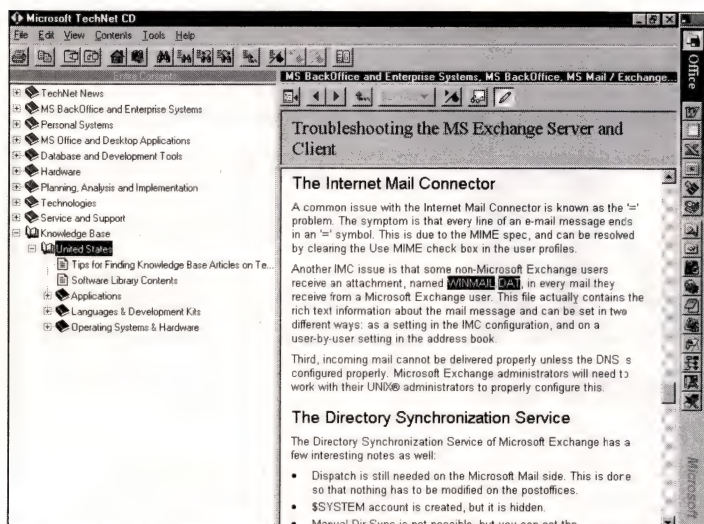


Figure 3. A search result for the string "WINMAIL.DAT".

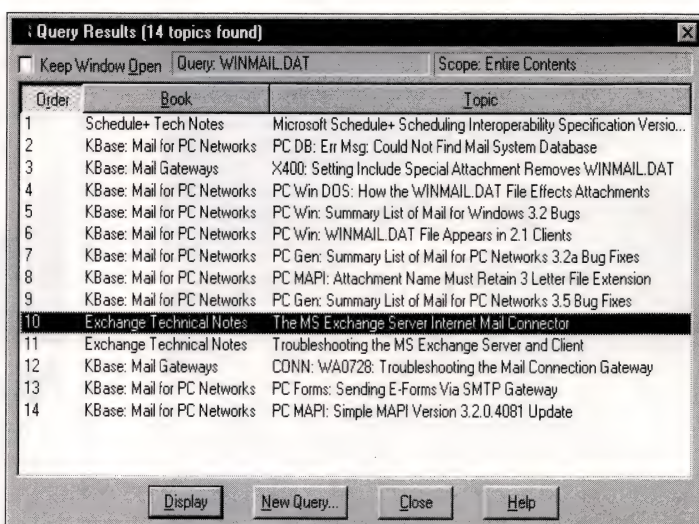


Figure 4. My problem lay with Windows 95 so I picked the Exchange hits.



## Alternatives

Internet users may know that the Microsoft Knowledge Base is available on the [www.microsoft.com](http://www.microsoft.com) Web site. Why would you want to pay for a CD-ROM when the information is available free of cost (other than your Internet access)? The Web is slow, not just locally, but at the Microsoft site, which is one of the busiest in the world. It may take longer than the time you have available. (It is also available on CompuServe: GO MSKB.) A CD-ROM is much more convenient.

Note, however, that searching on the Web is limited to using keywords. If you don't supply the exact keyword then you might miss something that is right there.

The TechNet CD gives you *full-text* search across all of the CD-ROM, enabling your search to encompass everything from Knowledge Base articles to resource kits and technical notes.

Internet files are updated frequently and sometimes files are updated on a daily basis. However, the Web discourages posting very large files to avoid long download sessions for users, so some of the larger files may not be available.

## What's new

Now a separate disc is devoted to the international Knowledge Bases, service packs, white papers, toolkits and more. There are some great new papers on Visual Basic 4.0, including the Enterprise Edition Reviewer's Guide, information on using VB 4.0 to build Windows 95 applications, add-ins, and chapters on VB and OLE servers. Also supplied are troubleshooting information on Microsoft SQL Server 6.0, a white paper on creating an architectural design and implementation plan for Microsoft Systems Management Server, Service Pack 2 for Windows NT 3.51, and a demo of New Technology Partners' Quota Manager for Windows NT. In the MS Office and Desktop Application department are some Access 95 additions: a table analyser, and question and answer pieces on replication and on MS Jet 3.0. Office 95 training material is also provided. The December 1995 issue, for example, contained updated drivers to fix the Windows 95 file and printer sharing security issue. The user interface has been revamped to give a Windows 95 look and feel.

## Conclusion

If you need access to Microsoft support information, particularly the larger files that are provided on the CD-ROM, then this medium might be your best bet. The Microsoft TechNet CD-ROM (Single Issue) costs \$60; \$40 to *Communique* and *Communique Care* members; \$30 to *Communique Pro* members. You need at least one issue of this in your collection.□

# Basic PC maintenance

## HARDWARE TIPS AND TRICKS

Tim P. Hardman

**H**ave you even wondered what you can do to help prevent your personal computer from breaking down? Or thought about what should be done to keep it running at its best? Well here are a few tips on basic work you can do to help maintain your PC. Unless you're a experienced computer technician, you'll probably want to leave more complex maintenance to the professionals.

### Getting ready to work

The first thing to do is clear your desk or work bench and make sure you have adequate working area. Then unscrew the case and remove the lid, or if your computer has a flip-top case, just open it. Remember to leave the power cord plugged in but switched off, so that the PC is earthed

### The PC itself

Once you have the case open, you'll probably need to vacuum any dust out of the PC. Once most of the dust is gone, remove the cards one by one, remembering which cables were plugged where and which way around.

Now, use an eraser to rub along the contacts at the bottom of each card—where it plugs into the bus slot. This is the best way to remove dust from the contacts. You're almost ready to replace the cards, but before you do vacuum any dust that may have fallen in the slots. As you replace the cards, you must be sure you replace each card in an appropriate bus slot (i.e. 32-bit card must go in a 32-bit bus slot). Vacuum any remaining dust and replace the lid.

### The keyboard

Taking care of your keyboard is simple. Before you start vacuuming, you'll need to remove the screws that hold the cover in place and lift the cover. When you do, you may notice some rubber covers. Each key has a rubber cover over the mechanism to which it is attached. If any keys are loose, you could vacuum up a key or a cover. Once you're finished vacuuming, make sure everything lines up and secure the covering.

### Other maintenance

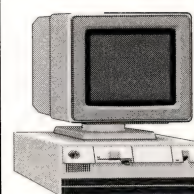
There isn't really much more mechanical maintenance you can do, apart from

making sure your monitor's casing is clean and free from dust. Electronically you will probably want to defragment your hard disk(s) regularly. This involves running an disk optimisation program such as *Norton Speed Disk*, *Microsoft Defrag* or the *Central Point* equivalent. Regular checks on the condition of the condition of your hard disk(s) are also in order, using a program such as *Norton Disk Doctor*, *Microsoft Scandisk* or *Central Point Disk Fix*. Other than that, treat your PC with respect and enjoy using it!

### About the author

Tim P. Hardman is a part-time computer technician, in training to become an electronics engineer. You can contact him via e-mail at: Internet: [tim.hardman@empire.bbs.net.au](mailto:tim.hardman@empire.bbs.net.au) Netmail: 3:632/530

□



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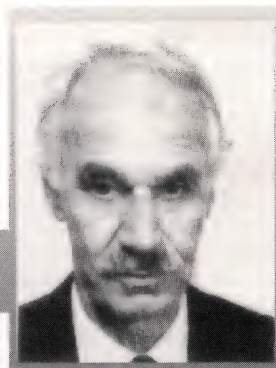
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# Privacy protection for all

## WHY DO I NEED PRIVACY?

Major Keary



**A**ndré Bacard in *The Computer Privacy Handbook* quotes William Safire—a *New York Times* columnist—on the subject:

*"We are frisking each other. Picture yourself going to work tomorrow, handing over blood and urine samples, taking a quick turn with the house polygraph, turning out your pockets and walking through some new fluoroscope. You object? Whatsamatter, you got something to hide?"*

Bacard asks his reader to imagine making a visit to the police and FBI and demanding to be provided with whatever information they have on their respective databases about you. The chance of success is, of course, pretty slim. You are likely to be treated as a crackpot. So, he suggests, your response should be, "Whatsamatter, you got something to hide?"

### The politics of privacy

Governments in many countries are concerned to curb the use by ordinary citizens of newfound cryptographic tools. They argue the need for some state organs to have the ability to intercept and read all communications (excepting, of course, those communications protected by diplomatic treaty and of the state).

Cryptography is an old art. Until recent times codes and ciphers were, with the exception of one method, vulnerable to attack. Computers *per se* extended the capacity of cryptanalysts, but did not provide any significant improvement to cryptography other than to make existing systems more efficient.

The one system that still defies all attacks is known as a one-time-pad. Why is it so good? Because it uses a key that is unique to a given message, and the key is the same length as the message. The system has been applied to computer-generated cryptosystems, but is still employed using physical pads on which are printed groups of random letters (some systems used numerals, but the alphabetic one is most common). I can assure you the process of encrypting a message is tedious, but a great way of focusing on brevity. The necessary key has to be held by all communicating parties.

The most significant advance in the history of cryptography was the concept

of a public key. That will be explained more later on, but public key encryption has empowered ordinary people to use an extremely secure method of keeping their communications private, and similarly protecting their data.

The most well-known of those systems is PGP (Pretty Good Privacy) created by Philip Zimmermann and publicly available in freeware versions. It has, however, attracted official ire in the United States.

The problem is that the American government defines cryptographic material as a munition; the *International Traffic in Arms Regulations* makes it illegal to export (or even give to someone who is not a US or Canadian citizen) cryptographic software or any other *crypto* material.

The government there is pursuing introduction and mandatory use (to the exclusion of PGP and similar systems) of *Clipper*. Those who think Clipper is just the name of a dBASE compiler should enlighten themselves about the **other** Clipper. It is a chip designed for encryption; in spite of official denials, some suspect it has a *back door* that enables government to read intercepted messages. The official line is that anyone, other than state organs, wanting to use encrypted communications will use Clipper and lodge their encryption key with some official repository. The idea is that, in the event of official need to read an intercepted communication, the key can be obtained by court order.

There are some who just don't trust government, and argue that it will not stop the bad guys from using sophisticated encryption. Imagine Saddam Hussein instructing his agents in the US, "Now, you chaps, observe the law and use Clipper when sending secret messages."

It is not just the Americans. In France it is illegal for anyone to use PGP or the like. There has been discussion in Australia and the official line seems to be running parallel to that of the Americans.

André Bacard's book—described in more detail later—is an excellent resource for anyone interested in the politics of privacy and the for-and-against arguments. It also describes Clipper.

### The PGP export saga

Because of the crypto-is-munitions argument, export of PGP from North America is illegal. It is not, however, illegal to use PGP outside the USA—get a copy from anywhere in the world except North America and use it without fear of legal action.

Authors of books about PGP often seem to engage in an odd semantic ritual that brings to mind *Yes Minister*. It is all because export of PGP from North America (export to Canada is permitted) is illegal. American officialdom persists with the charade even though PGP is freely available world-wide. Authors and publishers have to be careful not to compromise themselves, hence the strange and evasive manner that sometimes creeps into the writing.

Even though Zimmermann could not legally export PGP, it escaped from the US and has since proliferated on the Internet.

There are all sorts of odd twists and turns to the story of PGP; for example for reasons of copyright there are differently designated versions for distribution in North America and elsewhere. The present situation is that the latest *international* version is marginally the better one, but both are compatible. The reason is the copyright status of RSA. The copyright is not recognised outside America, but the latest *international* version of PGP has substituted MITLIB, a work-alike that is faster than RSA. Within America some early versions of PGP infringed RSA copyright, but the current versions do not.

The fact that the legal action against Phil Zimmermann has been abandoned does not change the legal position in the USA; export of serious crypto is prohibited.

### Non-American sources of PGP

PGP is available for Amiga, Atari, Archimedes, Mac, Mac Applescript, DOS, and UNIX. Some BBSS carry PGP, but Internet sites are the most reliable source. Australian ftp sites with versions for Mac, DOS, and UNIX and listed by archie.au are:  
[coombs.anu.edu.au \(/pub/pgp\)](http://coombs.anu.edu.au/pub/pgp)



<ftp.ocs.mq.edu.au> (/PC/Crypt)  
<ftp.dstc.edu.au> (/u7/security/Crypto/PGP)  
 and there are many other sites world-wide.  
 The latest version (2.6.2i) can be found at  
<http://rschp2.anu.edu.au:8080/crypt.html>  
 —for those who don't use a Windows  
 interface, Lynx can be used to locate and  
 download PGP262i.ZIP. It is also on Melb  
 PC BBS.

## Pretty Good Privacy

PGP is a cryptographic (*crypto* for short)  
 system originally devised by Phil  
 Zimmermann. It uses known algorithms  
 in a particularly efficient way using  
*public key* encryption.

An important feature of PGP is that  
 anything encrypted on one platform can  
 be decrypted by a version of the  
 program running on some other  
 platform. PGP can also be used to  
 encrypt a binary file—executable, image,  
 or whatever—which is a convenient way  
 of sending binaries by e-mail, or  
 protecting stored data.

Algorithms used by PGP for its various  
 functions are:

- RSA is a public key cryptosystem that  
 can be used for encryption and digital  
 signatures and is used in the  
 commercial version (ViaCrypt) and a  
 freeware version released by MIT
- MPILIB is an alternative to RSA and used  
 in PGP 2.6.2i; because of the RSA

copyright problem within America  
 MPILIB cannot be legally used there

- MD5 generates *hash code*; when used  
 on plaintext of any length it creates a  
*value* that is a virtual fingerprint of the  
 original text—if even a single letter is  
 changed in the plaintext it will not  
 return the same hash code
- IDEA (International Data Encryption  
 Algorithm), which is similar to DES  
 (Data Encryption Standard), is used to  
 encrypt the main text of a message;  
 IDEA uses a much longer key than DES  
 and is, therefore, much more secure
- ASCII armor is not a reference to  
 armour against attack, but to arming a  
 file for its passage through e-mail  
 systems, which sometimes change  
 things when 8-bit ASCII is used; ASCII  
 armor converts everything to 7-bit  
 printable ASCII characters
- ZIP (also known as LZ 77), a popular  
 compression algorithm, is used as one  
 of PGP's functions

Considering the number of complex  
 function PGP performs it is not a very big  
 file (234 KB); the user controls just  
 which functions are used by command  
 line switches or by defaults written into  
 an ASCII configuration file.

PGP takes a plaintext file and,  
 according to user preferences, may first  
 append a header containing an

enciphered digital signature. The file  
 (encrypted header and plaintext) can be  
 compressed and the resulting file  
 encrypted and converted to ASCII armor  
 for transmission. Users can put PGP to  
 work as-is without too much worry  
 about switches and the configuration file.  
 Once some familiar with its default  
 operation the user can turn to fine  
 tuning. It is a marvellous example of  
 programming when one considers the  
 complexity of the various algorithms used.

## Why compression?

Apart from reducing the size of a file for  
 encryption, compression performs another  
 important function. It provides an added  
 defence against cryptanalysis. Powerful  
 computers can be used in successful  
 brute force attacks (one simply tries  
 every possible combination to find the  
 key), but success is not apparent until  
 some plaintext is revealed. Compressed  
 plaintext is no longer readable and the  
 cryptanalyst has a difficult task in  
 deciding when to test for compression.

## Public and private keys

The most significant advance in crypto-  
 graphy has been public key encryption.  
 Conventional encryption requires that  
 both sender and receiver have an  
 identical key; the problem is how to  
 communicate the key and protect it.

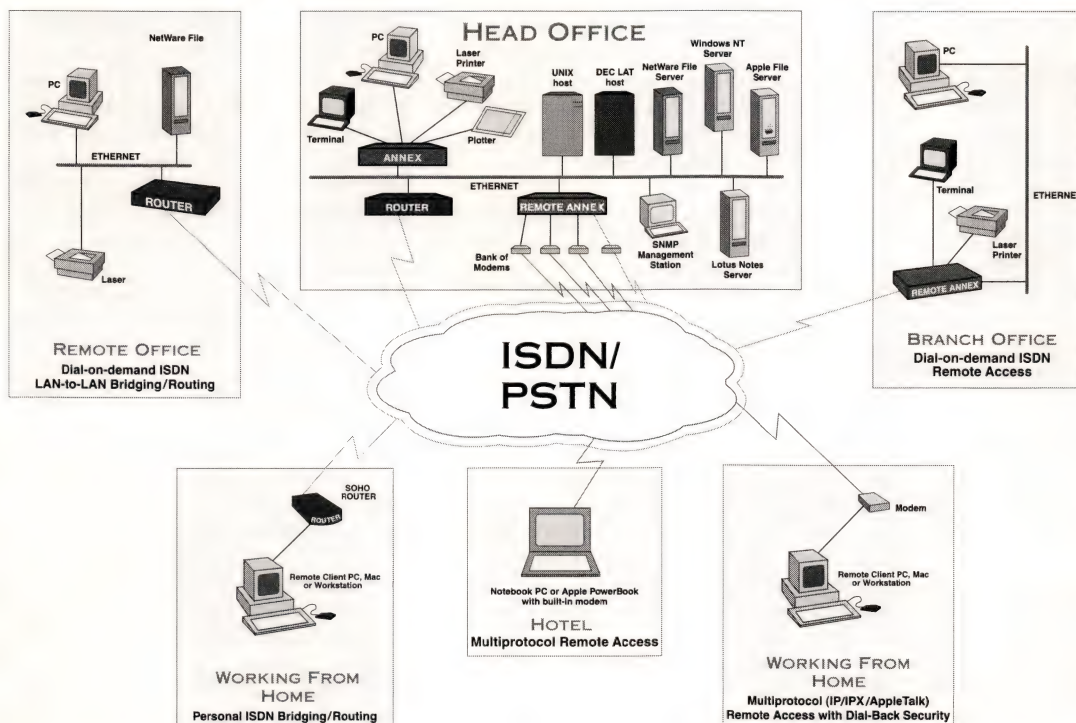
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There are situations in which the problem of key security can be overcome, but what about the Herbert in Hobart who wants to send a message to Helga in Helsinki; they have never met and there is no way in which a conventional key can be exchanged securely.

Public and private keys are generated using the RSA algorithm. There are public registers for public keys, and it is quite secure to send one in plaintext to an intended recipient of an encrypted message.

Suppose Herbert of Hobart informs Helga of Helsinki that he wants to exchange e-mail using PGP. They can exchange public keys in plaintext by e-mail, or inform each other of their respective public key servers. Herbert then uses Helga's public key to encrypt a message that can be decrypted by only Helga's private key. Cunning, isn't it? The key used to encrypt cannot be used to decrypt. When Helga replies, the message is encrypted using Herbert's public key and his private key is the only way in which the message can be converted back to plaintext.

If Herbert was proposing marriage and later reneged, Helga would have no difficulty in establishing that the proposal had come from Herbert and not from some prankster.

A particular strength of PGP is the way in which it solves the problem of tampering with public keys.

## Digital signatures

It is often not necessary to encrypt the body of a message, but it may be important to provide sender authentication. PGP's digital signature function serves that purpose.

There are many reasons for having a reliable method of verifying the identity of someone who has sent a message or other communication. For example, a stock broker receives an order by e-mail; the order is executed, but the client later denies having sent it. If a digital signature is appended it is a simple—and very reliable—matter to authenticate the sender's identity.

Financial transactions, access to restricted areas of a network, and even proposals of marriage are just some of the ways in which digital signatures can be used to overcome forged messages, passwords, and the like. Digital signatures are usually an element in providing a guarantee that the message has not been altered.

It works like this. Herbert in Hobart wants to send e-mail to Helga in Helsinki and to provide Helga with the means of satisfying herself that the message is in fact from Herbert and has not been changed. Herb runs his message through PGP which uses MD5 with his private key to generate a hash code of

his plaintext; the hash code is then encrypted with RSA, also using Herb's private key. His key ID (usually an e-mail address and necessary to get his public key) is also attached to the message.

At the other end Helga uses Herb's key ID to obtain his public key which is used by PGP to decrypt the hash code; PGP then does a hash of the message and compares the results. If they are identical the message is authentic.

## Electronic fingerprints

In publications, e-mail, newsgroup postings, and other places one may see something like:

```
PGP Fingerprint:
9E 94 45 13 39 83 5F 70
7B E7 D8 ED C4 BE 5A A6
```

which is Phil Zimmermann's and is a hash code of his PGP public key. If someone creates a key pair and tried to pass the public one off as that of Phil Zimmermann it will fail the hash test.

## PGP and character sets

What happens when plaintext is created using differently mapped character sets? The English version of Windows uses an extended version of ISO 8859/1 (also known as Latin 1, but not to be confused with IBM's Code Page 850 which is also called Latin 1). Most English language DOS applications use either CP850 or CP437 (both IBM creations) that map characters between 127 and 255 quite differently from what Microsoft loosely calls ANSI. In fact ANSI X3.134.1, which is identical with ISO 8859/1, does not use the code positions 1–31 and 127–159, whereas Windows applications use most of those positions for extra characters. CP437 and CP850 use all but position 255, but vary considerably between each other; CP437 has all the fancy box drawing characters and some Greek characters, whereas CP850 provides a range of accented and other special characters.

Windows also has several language versions, each with its own mappings of the positions above 127.

Whatever character set or keyboard configuration is used, the extended ASCII codes generated are encrypted and decrypted as-is. If you create a file using Windows software and the recipient reads it in DOS, then some characters will be garbled. Accented characters are the main problem; for example, the character, é, is mapped at 130 in CP437 and CP850, but appears as a comma in most Windows applications; in ISO 8859/1 and Windows ANSI, é is mapped at 233, which is the code position for ð in CP437 and Ú in CP850.

PGP's configuration file does provide for some character conversion, but if one wants to use characters mapped above 127 be aware that they may be garbled at the receiving end. There is nothing

new about that. ISO 646 defines 7-bit ASCII with no less than thirty-seven national variants in respect of twelve positions: # \$ % & ' ( ) \* + , - . / : ; < = > ? [ \ ] ^ \_ { | } ~. ASCII was originally devised for teletype and cable traffic; even for that purpose one had to be careful when sending anything to Canada where ten of those character positions are used for accented vowels in a Canadian standard, CSA Z243.4, for 7-bit ASCII. IBM's 8-bit French Canadian set, CP863, manages to consign the accented characters to positions above 127, thus retaining compatibility with ANSI X3.4 (American 7-bit ASCII).

If Herbert of Hobart uses DOS with CP437 and Helga of Helsinki is using MS-Windows ANSI, then Helga may unwittingly be saying *no* when she means *yes*. Helga might even be using the East European version of Windows, in which case the default will be another character set (based on ISO 8859/4).

The moral is, stick to *real* ASCII (7-bit) for encrypted messages unless there is an understanding between communicating parties as to which character set will be used.

## Documentation

Phil Zimmermann's manual, *The Official PGP User's Guide*, should be part of the PGP archive file found at Internet sites. It is also published as a book by MIT Press.

There are publications that describe PGP amongst other systems and in the general context of network security. Two particular books deal with PGP exclusively: *The Computer Privacy Handbook* and *Protect Your Privacy*.

## The Computer Privacy Handbook

André Bocard is quite passionate about privacy and how ordinary people can reassert it. His book reads like a well prepared text for a presentation, which makes for easy and pleasant reading. That's not surprising, as he is a highly regarded public speaker in America.

A third of the book is about the issue of privacy *per se* and is the most articulate argument I have seen for resisting official assertions of necessity for the interception and collection of private information.

Having spent many years working in and with organisations that invade privacy—in the public interest, of course—I can claim a more than ordinary acquaintance with the issues and find the author is not over-sensitive to the threat of personal information being misused. That is not to deny the official camp does have some strong arguments, but I find those of André Bocard quite compelling.

Anyone involved in civil liberties will find the first part of the book a useful resource, even if they have no desire to comprehend cryptographic systems in general or PGP in particular.



Having argued why we should not be complacent about privacy protection, the book goes on to describe cryptology in general and deals in some detail with *Clipper*.

There is a short, but informative overview of cryptology that includes the Data Encryption Standard (DES), RSA (the letters stand for the names of its three inventors: Rivest, Shamir, and Adelman), and digital signatures.

The rest of the book is about PGP and using it on a PC. Even though it talks about ViaCrypt 2.7 (a commercial implementation) the operations are identical to that of the *international* versions (identified by the letters *ui* or *i* in the file name). The author does a good job of explaining how to install and run PGP.

The book is of special importance to those who have an interest in the privacy issue and if only for that is recommended as a library acquisition. It is also a good introduction for those who have no background knowledge of cryptology and would like a starting point for further reading.

André Bacard:

*The Computer Privacy Handbook*

ISBN 1 56609 171 3

Published by Peachpit Press

274 pages

RRP \$46.95

### ***Protect Your Privacy—A Guide for PGP Users***

Dr William Stallings is a well known author of books on communications. In particular he has written on network security and the implementation of encryption systems.

Even though most of his publications are intended for a professional audience, a degree in computer science is not required to comprehend them. Bill Stallings is articulate and, without talking down to non-professional readers, is very good at explaining concepts that don't lend themselves easily to the written word.

*Protect Your Privacy—A Guide for PGP Users* is an excellent user manual.

Eschewing the politics of privacy, the author deals with the fundamentals of one particular system, Zimmermann's PGP. His overview of conventional encryption, public key encryption, secure hash functions, and digital signatures is a good introduction. He discusses in some depth—but is never incomprehensible—the way in which they work and are brought together in PGP.

The reader will find a lucid account, supported by useful diagrams, of how public and private key systems function and how the keys are generated.

The book covers Windows, DOS, and Mac implementations of PGP. There is no

Windows version *per se*, but at least two *front ends* are available.

This is the best available account of PGP. Phil Zimmermann, in a foreword, refers to his own publication—*Official PGP User's Guide*—and then says, "But Bill Stallings' book is more comprehensive than mine, more thorough, covering more detail, with a lot more diagrams. ... In fact I'll probably use his book myself as my preferred reference to PGP". Every detail is covered, particularly configuration options and how to make your own implementation more secure.

Passwords can be troublesome. On the one hand is remembering them, and on the other hand is the need to make them safe against attack. A chapter is devoted to strategies and other helpful advice.

There is a useful section on resources, such as where to find PGP, current versions, export controls, and public key servers.

Given that PGP is available free, the price of the book is a small investment for a really good and thorough manual.

William Stallings: *Protect Your Privacy. A guide for PGP Users*

ISBN 0 13 185596 4

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302 pages

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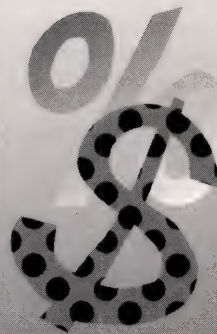
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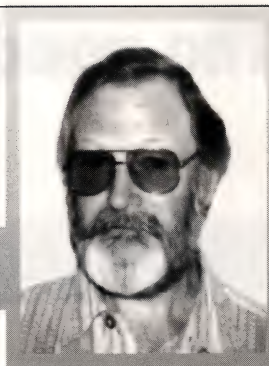
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Christopher Canham



If you use the *Blue Wave* (BW) offline reader (OLR) and you want to upgrade to the latest version or you are a newcomer who wants to install your first OLR, you'll be pleased with the easy installation process in the newest version of *Blue Wave*.

If you haven't already downloaded a copy of *Blue Wave* v2.3 use the BBS file tagger to locate the correct BW for your operating system and computer speed. If you don't already have a file compression utility like, PKZip you'll want to download one at the same time.

As with previous versions, BW comes in three "flavours"

- BW23\_DOS.ZIP is for members using DOS, it requires an 8088 or faster processor, DOS 3.3 or later and 640 KB of RAM.
- BW23\_386.ZIP is similar to BW23\_DOS.ZIP except it uses any free memory above the 1 MB limit. It's recommended for members with a 80386 or faster processor with DOS 3.3 or later and 2 MB of RAM.
- BW23\_OS2.ZIP is for members running IBM's OS/2 operating system version 2.0, or higher, on an 80386 or faster processor, with 4 MB of RAM (although 8 MB is recommended).

The file names and commands in this article are based on BW23\_DOS.ZIP.

### Read this first!

Whether you are upgrading or installing BW for the first time you'll want to make a temporary directory, say C:\BW23 into which you can unzip the compressed file. You'll need a utility like PKZip to do this. Then print and read the file called INSTALL.DOC. (If you are a registered user of BW version 2.2+ don't panic when you read the instructions regarding new registration codes, they only apply to BW v2.0 and 2.1.)

This is also a good time to back up (if you haven't done so recently). At the very least upgraders should make a copy of their current *Blue Wave* directory just in case they have problems during the installation process.

### Upgrading

Once you have unzipped the files to the directory C:\BW23, change to the C:\BW23 directory and type INSTDOS at the prompt. A menu will appear and you should select the UPGRADE option. You will be prompted to enter the name of your current BW directory and for any additional information required to complete the process.

During installation the program will have transferred any old BW files that are no longer needed for BW v 2.3 to a subdirectory called OLDDOS. Once you are up and running you can delete these files and the subdirectory.

You can also delete the files in the temporary directory C:\BW23. Make a backup copy of BW23\_DOS.ZIP on a floppy disk and delete the original BW23\_DOS.ZIP file from your hard drive.

### New users

First time users will find installing BW is even easier than the upgrade process. From the prompt in the temporary directory (into which you have already unzipped the file BW23\_DOS.ZIP) type INSTDOS. A menu will appear and you should select the NEW INSTALLATION option.

You will be prompted for the name of the directory into which you would like BW installed. Pick something short and easy to remember, like C:\BW or C:\BWAWE. When you are prompted for the parts of the mail reader you want installed, respond YES to all parts.

Now you can delete the files in the temporary directory C:\BW23 or C:\BWAWE, and make a back up copy of BW23\_DOS.ZIP on a floppy disk and delete the original BW23\_DOS.ZIP file from your hard drive.

If you want to be able to run BW from any directory, you'll want to amend your AUTOEXEC.BAT file to include *Blue Wave* in your PATH statement. It's also recommended that your CONFIG.SYS file shows a minimum FILES=25 and BUFFERS=30.

### New users and old hands alike

Once you have completed installing (or upgrading to) BW v2.3 print and read the BWAWE.DOC and BWDOOR.DOC files.

### Useful extras

*Blue Wave* v 2.3 includes TED3.COM, a simple DOS text editor. While you can use TED to compose messages off line, I suggest you download a copy of the Australian DOS text editor, BREEZE v5.4 instead.

### When you're riding "The Wave"

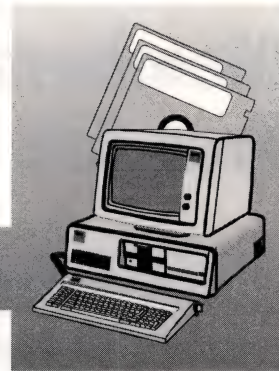
*Blue Wave* isn't just easy to install, it's also easy to use. Help is never far away, press the F1 key for context-sensitive help at any time. Additional help functions are accessed with the F2 and Alt+M keys. □



# The good old days

## COMPUTING HISTORY

Ewart Matthews



It was my good fortune to be part of the earliest days of the computer age, from the birth—almost—of computers as we know them today. Of course I was not involved in the development of the initial concept, but came on the scene when computers were sufficiently advanced to be taken out of the hands of the “eggheads” and into the clutches of ordinary mortals.

Someone, somewhere took a great leap forward and after years of experimentation, finally decided to allow a normal, business person to control one of these hideously expensive devices and use it to process business data.

### Installing and running a system

You could not simply plug one of these behemoths in and boot in a program. Programs as such did not exist in the commercial world. Office and accounting work was done manually by clerks. At the start, no one knew how to make a machine do all the individual tasks that were being done manually. So, not surprisingly, many mistakes and disasters accompanied the learning process. Nor were there any compilers to put things together. You worked out what you wanted the machine to do in a rough kind of way using hand drawn charts, and then transposed this into a program, written in machine language. You typed the program into a typewriter that also punched paper tape. The paper tape was then fed into the computer on using a “high speed” tape reader. This was followed by an agonising process of trial and error, using sample data, before live data was used to produce a real result.

There was nothing even remotely like DOS. Machine language was just that, long lines of numbers and letters, each carrying some message, something like the switches in a DOS command line, and just as mysterious to a beginner.

Things we take for granted—compilers and other programmer's aids—came years later, when magnetic tape appeared. Display screens were in the future, too (television was experimental, but no one had seen one at that stage). Magnetic tapes, magnetic stripes on cards, disks, all common now, were just dreams for the future.

### Input/Output

The only input/output device available to the programmer was a console typewriter and all contact with a running program was through the typewriter, at typewriter speeds.

Once a program had been hammered out on the drawing board and punched into paper tape, it could be entered each time it was needed by using the typewriter keyboard again to enter a little, starter-program that instructed the computer to “read tape into location X.” Of course the first memory location this tape program sought out was at “X.” Because this was likened to coaxing a fool to “lift himself by his bootstraps,” these little “get started programs” (similar to programs like “install” that we often use today) became known as “bootstraps.”

The bootstrap or “boot program” would cause the typewriter to type “enter date”. You would comply by typing in today's date. This was done one finger at a time in the early days! The processor would then type out “today is (say) Thursday” which put the ball back in your court to confirm the date was, in fact, correct.

One good thing about this early system was that you had a typed record of everything the operator had done. Wouldn't that be useful nowadays?

Once a program was in the computer's memory (more of this later), it could be output only by using a free standing peripheral which contained a paper tape punch (operating at 110 characters per second). Initially, the tape output spewed the loose punched tape into a bin. Later a winder was included which wound the output tape onto a spool. Of course it was inside out and it had to be rewound on a hand cranked winder before it could be reread into the computer's memory this time, using a high-speed paper tape reader (operating at 1500 characters per second!). The paper tape reader operated at such high speed, a winder for it was never developed, and the tape always emerged in a great messy heap into a large bin and had to be rewound later by hand.

### Memories

My company (known then as NCR) had a computer running in Sydney which, to my knowledge, used a unique type of memory.

Each memory location (now known as a byte), consisted of a five-inch diameter loop of spring steel wire, firmly held at each end and suspended in a solid block of insulating material. (For readers who don't remember, or never learnt the old imperial system, 5 inches is 12.7 cm.) A coil surrounded the wire at one end. When the coil was magnetised by a pulse of current, it caused a physical vibration in the wire, much as a bell rings when struck. The vibration travelled round the wire and arrived at the other end in due course (some milliseconds later) where a second coil was waiting. The physical vibration induced a small current (a spike) in the coil that, when suitably reshaped (squared) and amplified, fed back into the first coil and produced another vibration to begin its path round the coil.

If the vibrations were timed carefully, they could be fed into the wire consecutively, following each other in a pulse train until the wire “filled up”. This constituted one “byte” of information—12 pulses (with gaps, or no pulses, for the zero bits). This could cycle through the loop, ad infinitum if required, and so one byte of memory was established. There were thousands of these memory locations, I forget how many exactly, but each unit was about the size of a VCR tape cartridge. Several of these were contained in a cabinet the size of a locker-room cabinet and the cabinets stood in long rows. As the vacuum tubes aged with use, their output deteriorated. A daily exchange schedule was necessary to ensure all valves were operating at peak output at all times.

All the amplifiers involved were the old thermionic type of tube, with their glowing cathode heaters pouring out heat. They required massive air-conditioning systems simply to pipe this wasted heat away. Of course for any respectable sized memory you needed an entire floor of space to hold the many cabinets, each of which was filled with these glowing tubes pulsing with heat.



## An early hard disk

In one respect this T-model computer was well ahead of its time. It had an enormous hard disk. Literally! It was about a metre across and it was mounted vertically. To operate accurately, the disk had to be isolated from any vibrations, so it was mounted on a concrete platform. I cannot remember capacities or information exchange rates for this disk, but I do remember that it served the system well. It was in fact error free, until after some years of service the bearings were changed. It never worked successfully again. What's that old saying, "If it ain't broke, don't fix it?"

This early disk was so successful that I cannot account for the long delay in developing today's hard disk. I don't know why it took so long to reinvent the wheel, as it were. But when I was sent to the US for training in 1960 we used computers with memories made of ferrite cores. In this system each "byte" consisted of a string of 13 tiny doughnut-shaped rings about the size of the head of a pin. The cores strung in lines of 13 (we used 12 bits and parity) made up one byte of memory, although we called them "slabs" as sort of shorthand for "syllable" of memory.

Was this system an improvement over the earlier one? Yes. It was faster and

smaller, a trend had started!

The cores had three coils wound round them, a "write" coil, a "read" coil, and a "sense" coil. When current was passed through the "write" coil, the core was magnetised in a certain direction and represented a "one" bit. During this time the sensing circuits would be disabled and cores containing zeroes remained inert.

Once data was entered it was more or less permanent, at least until the program changed it or all zeros were written to "clear memory."

To read the memory location, current would be sent in the opposite electrical direction through the "read" coil reversing the magnetising effect in cores that contained "one" bits and producing "blips" in the now enabled sense coils.

The resulting "blip" caused a circuit called a "flip-flop" to flip—or change state. That memory bit then resided in a register as part of a binary number or letter—depending on whether you had asked for alpha data or numeric data. Each 13-bit string of cores was read out at the same moment, timed by an internal clock.

Each memory location contained 12 data bits, which could represent either three 4-bit characters ("numerics") or two 6-bit characters ("alpha"). You can still see this pattern in an ASCII code chart,

the two higher bits being "zone bits" to give the corresponding four levels of the ASCII system.

You could make a mistake and read "numeric" data as "alpha" or vice versa. When you did the output was called "nonsense English" and it was up to you to sort out the mess.

In this computer, the circuits were arranged on large removable boards in groups of 1000 memory locations, called planes. Ten planes fitted into a cabinet about the size of a domestic refrigerator. Our system had four planes, containing 40,000 memory locations—40 KB of RAM!

That was the only memory in that computer, there was no hard disk. Data was processed record by record, in via punched paper tape or punched cards, out (after sorting, etc.) via punched paper tape, or as data sent to a printer.

With some understanding of the complexity of processing data on these early machines—especially when compared to modern equipment and software—you can get a feel for how clumsy and inefficient hand-accounting methods must have been. It's hard to believe that the cumbersome process I have described was an improvement on the manual methods! If you still need convincing, I can only point to the alacrity with which most firms switched from hand to electronic data processing.

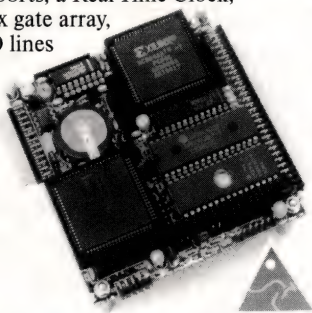
## Australian-made Embedded Computers: PC/104 or ISA bus

### PC540 80C188EB computer

This new computer uses the PC 104 bus, an international standard for embedded systems. The board provides an X86 instruction set, so familiar PC compilers, or Hi Tech's \$179 Pacific C can be used for program development.

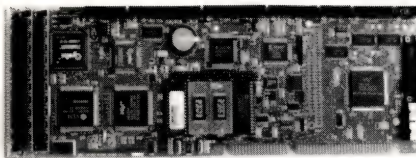
The board can run programs from PROM (512 kByte max), or a FLASH-PROM-based DOS can provide a familiar DOS environment from the PROM socket. Also, 128 or 512 kByte of battery-backed RAM can be installed.

Two serial ports, a Real-Time-Clock, and a Xilinx gate array, with 40 I/O lines make this board a compact, efficient embedded computer, costing only \$350.



### Embedded 386SX/486SLC

JED makes two computers on the ISA bus, the AT303 and the AT304.



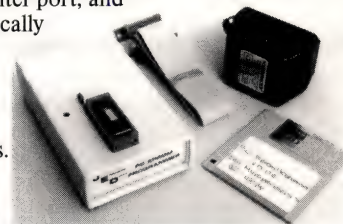
These boards are 13.35" by 4.6" and need only 4 watts from a 5-volt power supply. They plug into a passive back-plane for support of standard AT-bus boards. This board supports 16 Mbyte of DRAM in two SIMMs, and has four 32-pin sockets where CMOS RAM, PROMs or the AT302, 2 Mbyte FLASH module can be installed. JED's JDOS supports solid-state disk-drives.

On-board are hard and floppy disk drive interfaces, printer, keyboard, mouse and three serial ports (one RS485). A Xilinx gate array provides 20 I/O lines to the JBUS system for analog/digital I/O.

From \$750 for a 1 Mbyte system.

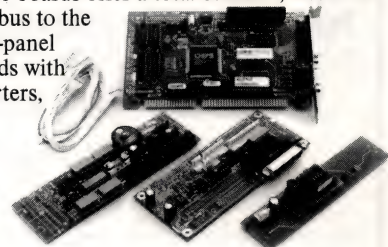
### \$300 PROM Programmer

This no-fuss programmer plugs into a PC's printer port, and automatically writes PROMs from 8 k to 4 Mbytes.



### AT350, AT351 LCD/EL VGA

JED has released a family of ISA-bus VGA interfaces to electroluminescent, mono, passive and active (TFT) liquid crystal panels. These boards offer a total solution, from the ISA bus to the back-panel boards with inverters, etc.



**JED Microprocessors Pty. Ltd. Phone (03) 9762 3588 Fax (03) 9762 5499**  
**Office 7, 5/7 Chandler Road (PO Box 30), Boronia, Victoria, 3155**



## The central processor

The whole computer system revolved around a crystal oscillator clock which beat out 6-microsecond timing pulses. These were tapped off round the processor in one-tenth microsecond divisions so that events could be manipulated to occur at exactly the right instant anywhere in the computer. Each cycle within the computer took 6 microseconds!

With systems nowadays operating at ever increasing speeds this seems awfully slow. But because input/output via paper tape and punched cards was also slow, the computer's speed was actually far beyond the needs of the day. We never had the experience of waiting for the computer to complete a task, in contrast with our experience with today's high speed computers. (In fairness I admit that we did wait for those long, long reels of paper tape and mountains of punched cards to feed through a reader.)

These systems were very sensitive to electrical interference. Power was produced from the mains by a large motor/alternator set that output 110 volts in three phases and served as an effective flywheel that completely blocked the system from line interference.

The circuits were mounted on printed circuit boards using discrete components that had to be hand assembled in the factory. The boards could be pulled out when we needed to troubleshoot faults from a bad diode or a resistor "gone high." There were four "flip-flops" to a board and several cabinets crammed with these racks of boards. In general the CPU was reliable, rarely giving us trouble, for which we were duly thankful.

## Where did the data come from?

Each cash register or accounting machine in the offices and stores was equipped with a paper tape punch, mounted under the counter. At the end of the day the punched tapes were gathered and sent to a "data processing centre" where computer staff worked through the night, feeding the tapes through and processing

the data as it went in. Even then the computer was fast enough to sort and file data as the data was being entered into the system via the paper tapes.

These punched paper tapes carried data in the form of seven holes (six bits and parity) along with a smaller, central sprocket hole. The sprocket hole was engaged by a toothed wheel for steady feeding and to ensure no slippage occurred while the tape was being punched.

When the tape was in the reader the small sprocket hole acted as a clock generator. Being smaller than the data holes, it ensured that all the data holes had been "seen" by their photo cells and that adequate time had passed for the signals to steady before the clock hole registered and the character was sent to the processor.

Punched cards were input using a 450 card-a-minute reader. Each card contained 80 columns of information, each consisting of 12 bit positions. That is to say, each row represented a complete memory location or byte.

When the card was fed out—during reading—the trailing edge of the card uncovered a series of 80 holes in the table of the card reader and exposed the holes to light. The holes were uncovered one by one and so provided a clock pulse (in the same general way as was done by the sprocket hole in the paper tape reader) to time the sending of a row of information to the processor. Once the "input run" was finished, most of sorting and processing work was also done and printing could continue.

## Output

Today's "high speed" printers have not advanced a great deal from the early days, at least from what I can determine. Our old battler could print 1500 lines a minute of alpha/numeric data and 3000 lines a minute of all numeric characters. Each line was 150 characters wide, so the speed with which the continuous stationery moved through the printer was already close to the maximum possible.

When that printer was producing invoices, the paper poured through at great speed.

The typeline contained a complete set of alpha characters and had room for two sets of numerics in each of the 150 positions. This meant that data that was all numeric could be printed twice per revolution of the typeline. A welcome innovation that was to come later, was a mechanical output feeder and stacker for the high speed, all-numeric work.

Of course moving this much paper and cardboard at high speeds generated plenty of static electricity, which could be disastrous because it caused memory errors. So it was important to control the moisture content of the paper tapes and cards, another reason these large systems needed such extensive air-conditioning systems.

Giving the input materials time to equilibrate with the conditions in the computer room was another precaution we took to protect against shocks. Storing the tapes and cards in the computer room environment for several hours gave the paper and cardboard time to settle at room temperature and humidity. Nevertheless I had many electric shocks handling a bin (on rubber wheels and insulated) which picked up surprisingly large amounts of charge after a long input sessions, so we devised steel shorting fingers on the cabinets to short these tape bins to ground.

We technicians worked pretty hard to keep everything running smoothly. The systems ran 24-hours-a-day, seven-days-a-week and we were only allowed to have the system for one hour a day for maintenance. This meant we spent long hours out in the workshop, changing boards and trouble shooting problems.

Gradually modern equipment began to replace the original machines. Computers became faster, smaller and more reliable. But I have fond memories of those early days and of a stimulating and satisfying job which I loved doing. □

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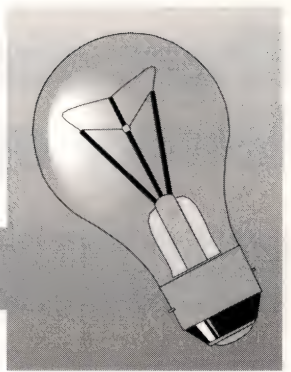
**Discount for Melbourne PC User Group members**



# The agents of dark

## A NEW DISCOVERY

Rutherford Peters



**... heat is the  
absence of cold  
... light is the  
absence of dark**

**F**or years electric utility companies around the world led the public to believe they were in a service business, supplying expensive electricity to consumers. A previously suppressed report emerged during the recent Victorian power company sell-off. This led to a massive research project that exploded several myths and exposed the massive hoax that has been perpetrated upon us.

The most common hoax promotes the false concept that light bulbs emit light. In reality, these "light" bulbs absorb *dark*, which is then transported back to the power-generating stations over wire networks. A more descriptive scientific name has now evolved: the *deluminater*.

The deluminater theory proves the existence of dark, establishes the fact that dark has great mass, and further, that the dark particle (the antiphoton) is the fastest known particle in the universe. Apparently, even the celebrated Albert Einstein did not suspect the truth that just as *heat* is the *absence of cold*, so *light* is the *absence of dark*. Scientists have now proved that light does not exist. Fortunately for physicists, the speed of dark is the same as the speed of light, but in the other direction, so Einstein's well-known equation,  $E = mc^2$ , becomes  $E = m(-c)^2$ , which amounts to the same thing and preserves most of this century's space and electronic theory.

### The theory, simplified

The basis of the deluminater theory is that electric light bulbs absorb dark. For example, look at the deluminaters near you. There is much less dark right next to them than there is elsewhere, proving their limited range. The larger the deluminater, the greater its capacity to absorb dark. Larger deluminaters in parking lots or sportsgrounds have a greater capacity.

Deluminaters also operate on a celestial scale. Our Sun makes use of dense dark, dragging it in from the planets and intervening dark space. Naturally, the Sun is better able to absorb dark from the planets closer to it. This explains why they appear brighter than those farther away from the Sun.

Occasionally, the Sun over-absorbs. When this happens, dark "Sunspots"

appear on the Sun's surface. Astronomers have long studied these, only recently realising that they represent leaks of high-pressure dark. If the Sun absorbs more dark than it can store, it leaks back into space. This high-pressure leakage causes problems with radio communications. The colliding dark particles stream out into space at high velocity from the black "holes" in the surface of the Sun.

As with all manufactured devices, deluminaters have a finite lifetime. They are not 100 percent efficient transmitting collected dark to the power company, via the wires from your home, and dark builds up slowly within the device. Once it is full of dark, it can no longer absorb. This condition is observed by looking for the black spot on a deluminater that has reached its maximum capacity of untransmitted dark. This dark completely surrounds a full deluminater because it no longer has any capacity to absorb dark.

### Other devices

A candle is a primitive deluminater. New candles have white wicks. After the first use the wick turns black, representing the absorbed dark. If you hold a pencil near the wick of an operating candle, its tip turns black when it gets in the way of the dark flowing into the candle. It's no use plugging a candle into a power outlet. It can only collect dark, and has no transmission capabilities. Sadly, these primitive deluminaters have a limited range and are hazardous to operate because of the intense heat produced.

There are also portable deluminaters called torches. Their bulbs collect dark, passing it to a dark-storage unit called a battery. When full, it is either emptied (a process previously called "recharging," now to be known as "undeluminating") or replaced; after which the portable deluminater will work again. A battery is full of dense black dark, evidence that it is a compact dark-storage unit.

Look at your monitor or TV: they are nothing more than cleverly disguised deluminaters—another way to absorb dark to transmit to the power company.

The companion discovery, that heat is the absence of cold, and that cold and dark are related, is demonstrated by devices such as electric "radiators" (in

reality, they absorb cold) and toasters. These are inefficient deluminaters, due to their requirement to also absorb cold.

One of the major problems yet to be fully solved is that of nomenclature. Just one example in the computer industry is what were known as "light-emitting diodes" or LEDs. These will henceforth be called "dark-absorbing diodes" or DADS.

### The conspiracy

You might wonder, "Where is all this dark that the power companies have collected? What do they want it for?"

The answer is: they don't keep it. Every evening, after the sun goes down, they slowly release the dark they have collected back into the environment.

The cycle completes, the released dark causes the massive darkening at night. (If it were released during the day the Sun would absorb it and put them out of business.) We turn on our deluminaters and unwittingly retransmit the dark to them, paying for what we think is a service that they provide.

The power companies make billions of dollars with this conspiracy. They often over-absorb in their greed, as evidenced by the dark coming from their smokestacks during the day. They keep "fossil fuel plants" open for just this purpose. Industry transmits its excess dark to these plants to dissipate it without suspicion. The utilities tried using nuclear power plants to greatly compact dark and store it for future use. The technology required for this procedure eluded them and so they stopped building these plants, calling them "too expensive."

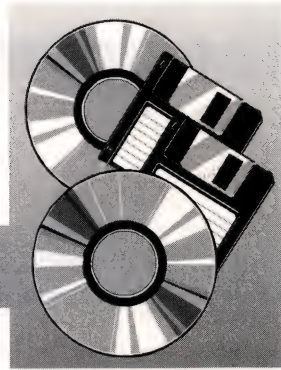
There is a new push for nuclear power plants. Have they solved the storage problem? What *do* they have in store for us in the future? Only time will tell... □



# Shareware/Freeware library update

TRY BEFORE YOU BUY

Glenn Webster



## Updates

### Melb 2500 **CHUNK Media Tools v2.0**

CHUNK Media Tools are self-running graphics utilities that enable you to display .PCX and .FLI/.FLC files in your multimedia presentations, store displays, trade shows and title screens for custom applications. You can include the programs in your batch files to perform fades, shreds, pours and wipes. You can also use Soundblaster .MOD music files to add sound. The utilities can display 256-colour .PCX images from 320x200 up to 640x480 (except for Spot). Your video card may require a TSR VESA driver to initiate the SVGA 640x480 mode. CHUNK Media Tools requires a 386 processor with 640 KB of RAM and VGA graphics card. A hard drive is not required to run the programs. Regn US\$5.

### Melb 8063 **NeoBook v2.1**

The latest in state-of-the-art electronic publishing, NeoBook is a multi-media authoring system that produces disk-based interactive newsletters, books, electronic catalogues, educational materials, etc. A compiler and runtime license enables you to distribute compiled publications (in .EXE format). NeoBook can import .PCX/.BMP format images and ASCII text. This new version includes virtual memory, wider support for new video cards, 24-bit true colour images and video modes, hotkeys, optimised compiling of finished publications, search facilities, pop-up menus, and many other features. NeoBook is as powerful as your imagination. NeoBook, and compiled programs created with NeoBook, may be run under DOS, or as DOS applications under Windows or OS/2, giving a wide choice of distribution options. Requires DOS 3.1 or later, EGA/VGA/SVGA graphics, an MS/Logitech compatible mouse, a hard disk and 640 KB of RAM. Regn US\$45. Additional templates and wallpapers are available for an extra US\$10.

### Melb 8115 **NeoBook Professional v2.1G**

NeoBook Professional is an authoring system for multimedia, disk-based newsletters, books, catalogues, menus, etc. It will link to most word processors, paint programs and sound file editors. The included compiler and run-time license allow compiled publications to be distributed in .EXE format. It will also import .PCX and now .BMP format images, and it can use Sound Blaster-compatible .VOC or PC speaker .SNG files in your publications. This version is a minor bug fix release. Requires DOS 3.1 or later, a hard disk, EGA/VGA/SVGA graphics, a mouse and 640 KB or more of RAM. Regn US\$90.

### Melb 8151

NeoShow enables you combine .PCX and .GIF format graphic images into effective presentations. Uses include group presentations, self-running exhibits, sales pamphlets, etc. A variety of screen wipes, fades and dissolves enables the user to produce smooth transitions. NeoShow can use 2-, 16- or 256-colour files at up to 1024x768, and use sound files on a Sound Blaster or compatible sound card. This update provides support for additional video cards and chipsets, 15- and 16-Bit Hi-Colour and 24-Bit True Colour (32 K, 64 K and 16 million colour images on supported video cards), support for .BMP image files (Windows and OS/2 formats) and file delete options that enable you to erase images and sound files by selecting them from NeoShow's storyboard (this feature makes NeoShow usable as a simple cataloguing and file management utility). This update no longer supports .GIF image files. NeoShow requires DOS 3.1 or later, EGA/VGA/SVGA graphics, a mouse, a hard disk and 640 KB RAM. Regn US\$35.

### Melb 8152 **NeoShow Professional v2.6D**

NeoShow Professional has all of the features of NeoShow (Melb 8151), with the additional benefit that its run-time license allows you to produce and distribute stand-alone shows as .EXE files. Support for additional video cards, 15- and 16-bit images (32 K, 64 K and 16 M colours), .BMP (both Windows and OS/2) and .PCX image files, image compression in compiled slide shows, a file delete option added to the file menu, external sound and image files have been added. It no longer supports the .GIF format. This update has been released to correct a number of minor bugs. NeoShow Pro requires DOS 3.1 or later, EGA/VGA/SVGA graphics, a mouse, a hard disk and 640 KB of RAM. Regn US\$90.

### Melb 8153 **Pretty Good Privacy v2.6.21**

Pretty Good Privacy (PGP) is a DOS public key encryption package; with it, you can secure messages you transmit against unauthorised reading and digitally sign them so that people receiving them can be sure they come from you. With PGP you can communicate securely with people you've never met, without requiring secure channels or prior exchange of keys. You must read the enclosed documentation before use. Even if you are already familiar with public key cryptography, it is important that you understand the various security issues associated with using PGP. It has excellent user documentation. This release is basically a bug-fix. Many of the text and documentation files have also been updated, and a number of new public keys have been added. PGP is freeware.

### NEOSHOW v2.6

### Melb 8161

#### **TELEMATE v4.20 (with .GIF utility)**

TELEMATE is one of the best of the currently available communications programs for contacting bulletin boards. It has integral support for all protocols available from BBS including the preferred Z-modem, and full mouse control, but it is equally satisfactory for keyboard use. TELEMATE provides enhanced BIOS support for 38400 bps, and support for serial cards with SMC665 or SMC666 chips. TELEMATE has an integrated environment that is easy-to-learn and easy-to-use. Its multi-threading features help you prepare messages and view files while you are downloading. Writing a script program is as simple as writing a BASIC or a PASCAL program. The learn script mode can also generate script files for you. TELEMATE also incorporates a protocol driver for .GIF format graphic images and enables viewing such images during transmission or reception. This version corrects a number of minor problems. TELEMATE requires DOS 3.x or higher, 640 KB RAM, a hard disk and a modem. Regn US\$49.

### Melb 8201

#### **Grow'Em v3.01**

Grow'Em is a compendium of information dealing with the propagation of various plant species, and contains information on various species. The program uses illustrations to show how to propagate from cuttings and reproduce from seeds. This is a horticulturist's guide to growing media, conditions and techniques, and plant-specific information. Digitised images, more sketches, new topics and information on more than 200 species of flora are available in the program. This update contains some revised ordering information. Requires a mouse, VGA or better graphics card and monitor, and 1.6 MB of free hard disk space. Regn US\$20.

### Melb 8209

#### **Tasks, Projects and People v1.52**

Tasks, Projects & People is an Executive Personal Information Manager (PIM). It's oriented around tasks and sub-tasks rather than being a day planner or contact manager. It includes a Task List, Address Book, Notebook, Dialler and more. It has over 30 fields for each task (for example, Start Date/Time, Priority, Date Completed, Days Remaining, Resources, and Workarea). This version is a maintenance release and fixes some minor problems. It requires MS Windows 3.1 and a mouse. This application also requires the Visual Basic runtime library VBRUN300.DLL which is not included on this disk. (It is available separately on disk Melb 8052). Regn US\$49.



## **Melb 8248** **All Media Library for Windows v4.1**

The All Media Library for Windows tracks and catalogues everything from CDs to videos, tapes, books, even collections of coins & stamps! The All Media Library can also keep track of whom you've loaned an item to, who borrowed it last, and when it was returned to you. Many features incorporated into All Media Library came from professional collectors and users' suggestions. It is used worldwide by schools, police forces and major corporations. This version contains a many improvements including the ability to define your own categories and media types, and print reports and labels. The List screen has been improved as well. All Media Library requires MS Windows 3.1 or later, a 386 or faster processor, and a minimum of 4 MB of RAM. Regn US\$55.

## **Melb 8281**      **Visual Calendar Planner** **for Windows v4.0**

Why load and run a calendar program when you can set the calendar as wallpaper instead! Visual Calendar Planner for Windows is a very powerful, award-winning scheduler and planner that is very easy to use. Some of its many features include, recurring events, unique alarm with multiple musical tunes, WYSIWYG fonts, colour printing, multi-view, multi-colour, multi-font and multi-document capability. This version is a workgroup-enabled network version. A single database can now be shared across the network among workgroups. Now you can drop in a note and everyone in the group using Visual Calendar Planner will see your note. You can also set a specific alarm schedule to remind your colleagues about a specific meeting. Visual Calendar Planner can be run under Windows 95 using the existing database. Requires MS Windows 3.1 or MS Windows 95, a 386 processor (25 MHz) or better processor. Regn US\$30.

## **Melb 8331** **Telemate for Windows v1.10**

This is the Windows version of the popular shareware DOS communications program. It is a feature-rich program with ANSI, Avatar and VT102 terminal emulation. It provides support for the X-, Y- and Z-modem protocols. Programming in the Script language is similar to programming in BASIC or PASCAL. Bookmarks can be set in a huge backscroll buffer and .GIF images can be displayed during transfer using the .GIF viewer supplied. You can auto-launch tools when a file is received. Telemate for Windows is easy to install and it will automatically detect your modem during the installation process. Many facilities are provided on toolbars. This update provides numerous changes to Terminal, Dialling Directory, File Tagging, Scrolling, Script Compiling and Windows 95 operation. Regn US\$39. An upgrade from the DOS version is US\$19.

## **Melb 8335-8336**      **Netscape Navigator** **for Windows v2.0 (2 Disk Set)**

Netscape Navigator is one of the most widely used navigation programs for use on the World Wide Web. It is designed to be used with SLIP/PPP accounts under Windows 3.x. Netscape Navigator comes in both 16-bit and 32-bit versions. The 32-bit version can only be run under Windows 95, as Win32s will not support the 32-bit addressing that Netscape uses. This is a later edition of the version in our SlipKit disks (on Melb 8177/8178) and fixes most problems incurred in the previous version. NAPLAYER, the Netscape audio player, will

only work if you have a sound card installed and configured properly. It will not work with the PC speaker driver. Netscape Navigator requires MS Windows 3.0/3.1 or MS Windows 95, 4 MB of memory, a 386 or faster processor, and the WinSock dialler program available in the SlipKit (on Melb 8177/8178). Regn US\$90.

## **Melb 8346**      **Blue Wave for DOS v2.30** **Melb 8347**      **Blue Wave For OS/2 v2.30** **Melb 8348**      **Blue Wave/386 v2.30**

Blue Wave is an offline mail reader for Blue Wave, QWK and other mail packets. Blue Wave for DOS is fully-featured and is supplied with a small text editor for use in preparing replies to mail. It is configurable to include your favourite accessories. Blue Wave Reader for OS/2 is a 32-bit multi-threaded application for use in OS/2 text mode (full screen) or in an OS/2 window on the desktop. Blue Wave/386 is similar to the Blue Wave mail reader for DOS, but it will use any free memory above the 1 MB limit, so you can view larger mail packets, larger messages, more message areas (and more messages in them), and much more. It is recommended that those who have an 80386 or higher processor use the 386 version to get the most out of their mail packets. The Blue Wave System is one of the easiest to use, most powerful, most configurable, and one of the most popular offline mail systems available today. It is for novices and experts alike. This version corrects some minor bugs and provides a number of enhancements, such as, optional editing after importing a text file, 2-character keyword searches, changes to the message splitting logic and speed increases when handling messages in QWK-style mail packets (DOS version). The DOS version requires an 8088 or faster processor, DOS 3.3 or later and 640 KB of RAM. Blue Wave for OS/2 requires IBM OS/2 version 2.0 or higher, an 80386 or faster processor, and 4 MB of RAM, although 8 MB of RAM is recommended. Blue Wave/386 requires an 80386 or faster processor with DOS 3.3 or later and at least 2 MB of RAM. Regn A\$50 for each version.

## **New disks**

### **Melb 2534**      **Disk Detective v2.84**

Disk Detective is a versatile collection of software tools, which provides verification of the quality and integrity of the data on compact discs including multimedia and video CDs. These tools give you access to every sector of your CD-ROM, and perform complete sector by sector comparisons between discs. This version includes audio player functions. Advanced pre-mastering and analysis functions for data and audio CDs are provided in the Professional version of Disk Detective. Even if you are not involved in producing your own CDs, you can use the diagnostic tools of Disk Detective to display information about your CD drive (header address, attributes, drive letter, I/O port address, IRQ, DMA, memory buffer size (found in CONFIG.SYS) and the configuration of your system. You can display the table of contents of a CD by track number, index and type, or choose any combination of audio tracks to be played. You can use the diagnostics tests to analyse any disc sector or range of sectors for readability and un-correctable errors and test the seek time of a CD reader.

## **Melb 2535**      **Vidir/Vires** **File Monitoring System v1.02**

This file monitoring system tracks which files you never use, backs them up, and then deletes them, helping you save up to 80% of your disk space without deleting the programs or data files you use. It's like connecting additional disk drives to your system without the expense! The monitor system tracks and saves every use of every file, including reading and writing files, executing programs, and program overlay requests. It maintains the date and time of the last reference to the file. It records the file's drive name and directory and the invoking program name, if any. The monitor maintains a count of how many times the file was referenced. Online help and intuitive pull-down menus are included. Regn US\$39.

## **Melb 2536** **Morse Code Made Easy v3.2**

Morse Code Made Easy is a complete menu driven Morse Code learning tool that enables the user to set the pace. The three major modes are lessons, practice and word list. The user can change the tone, number of words per minute, how many characters are sent at a time and whether or not the characters are displayed as they are sent. The program tracks the user's progress and displays a score based on level of difficulty at the end of each lesson. Requires DOS 3.0 or higher, 512 KB of RAM, a colour monitor and a hard drive. Regn US\$10.

## **Melb 2537**      **WebMate**

Ampersand's WebMate is an easy-to-use companion application for the Netscape Navigator. WebMate provides hotlisting features that are on the wish list of any Web Surfer. Ampersand brings you an easy to use URL maintenance system that helps you maintain your favourite sites on the web in your own hotlists. WebMate helps you to organise your hotlists with folders and sub-folders. It also takes advantage of the DDE and OLE capabilities of Netscape to keep your favourite site just a click away. Webmate features the ability to have multiple users on a single copy, to make the history list keep track of all sites visited, enables the import of NCSA MOSAIC's .INI file, the ability to export your hotlists as an HTML file. You can even password protect your hotlists for security. Requires the Netscape Navigator v1.1N or above. Regn US\$12.

## **Melb 2538**      **Configure! v1.0E**

Configure! is a Windows application that provides you with a visual way of modifying your system while working with Windows. Each group of settings that you can change is represented by an icon in the Configure! window. When you change a setting, it is stored in an initialisation file so that it will be in effect the next time you run Windows. Also, by using Configure!'s File menu, you can edit the initialisation files that Windows uses to store system and application settings. You can edit these files directly, using the Open command, or indirectly, using the Edit command. Requires Windows 3.1 or later. Regn US\$15.



**Melb 2539****ICOPS—Icon Police for Windows v1.1**

Password protect your Windows Icons from unauthorised use. ICOPS will modify your program manager so that anytime a user clicks on the protected icon he will be asked to enter a password. This is a simple but effective way to keep others out of certain windows applications, which uses a single master password that can be changed at any time. The technique used is not unbreakable. Anyone with expert knowledge of Windows can work around the security. This program is good for protecting programs from Windows novices only. Icon Police is Windows 95 compatible. Requires Windows 3.1/Windows 95 or later, an 80386 or faster processor, and 400 KB or free hard drive space. Regn US\$15.

**Melb 2540 Transmac for Windows v1.4**

TransMac for Windows is a PC Windows utility which can access Macintosh files and copy them to and from your PC. This will allow you to use your disks, whether they are Macintosh HFS format disks, HD diskettes, CD-ROMs and SCSI devices (SyQuest, optical drives, hard drives, etc.) and convert files between these formats. You can also format Mac diskettes in this program. TransMac for Windows requires Windows 3.1 or later, and a Macintosh disk of any of the aforementioned formats. Regn US\$64.

**Melb 8410****Money Smith 95 v3.1**

Money Smith 95 is an award winning accounting software package for Windows 95. Outstanding double entry accounting for personal businesses. Fast and easy to use—fully integrated with Windows 95. The program features an updated interface with drag and drop support, adjustable fonts and is a 32-bit compiled application. Includes financial calculator. Requires MS Windows NT version 3.52 or greater or Windows 95, 4 MB of RAM, and an 80386 processor running at a minimum of 20 MHz. Regn US\$30.

**Melb 8411****Larry's Learning Math Machine**

Larry's Learning Math Machine is an easy to use, fun program for Windows 3.x or Windows 95. It provides your child with practice in addition and subtraction. The registered version provides multiplication and division practice. The program provides a unique learning experience with good graphics, and sounds. Requires a 386 or higher processor, Windows 3.x or later, and a minimum of 640x480 video graphics. A sound card is optional. Regn US\$5.

**Melb 8412****Super Speed v1.1**

This speedy miniature car racing game delivers pure action for up to four players. Challenge your friends or compete against the computer's drivers. This shareware version includes three race tracks, but the registered version has nine race tracks, every single one challenging the driver's skills in a different way with all the obstacles you usually prefer not to find in real life driving. Human players use joysticks and the keyboard to control the cars. Requires a 386 or better processor, a VGA graphics card and about 550 KB of RAM. Two joysticks and an Adlib compatible sound card are optional. Regn US\$15.

**Melb 8413****Peter's Warbirds v1.2**

Peter's Warbirds is an enjoyable colouring program for children of all ages. Peter's Warbirds was designed to be used by young children with minimal assistance by adults. It enables the user to place the various World War II vintage aeroplanes, in any size, on a variety of backgrounds. Information is available on each plane, like the year it was made, type/classification of plane, weight, engine, etc. Requires DOS 3.0 or later, 512 KB of RAM, 1 MB of free hard drive space, a mouse and a VGA or better graphics card and monitor. Regn US\$30.

**Melb 8414****PhantomScreen v1.3**

PhantomScreen is a DOS-based screen saver utility that not only helps protect against screen "burn-in," it also protects your computer from unauthorised access while you are away, displays the time, livens your workplace with scanned images or computer art, leaves messages for those who may visit your desk, etc. A variety of colourful, customisable effects are included. PhantomScreen supports 2-, 16- and 256-colour images at up to 1024x768 resolution. Requires DOS 3.1 or higher, a CGA/EGA/VGA/SVGA graphics card and monitor, a hard disk and 640 KB of RAM. A mouse is optional. Regn US\$25 for a single user license.

**Melb 8415****Winmenu for Networks v2.1**

Winmenu is a corporate-wide Windows menu program designed to provide authorized access to all applications on a LAN. It provides easy and intuitive access without the complications of the Program Manager. It can ease administration tasks by providing access based on the group codes of the groups to which a user belongs. Network news may be displayed at startup automatically or via an icon. Winmenu options include showing the associated icon for each program, event-based sound effects, and separate online help for users and the administrator. Winmenu can replace the Program Manager for complete control. Person specific configuration and data may optionally be stored on a network drive. A screen icon enables users to invoke their screen saver immediately. Winmenu does not alter your WIN.INI and SYSTEM.INI files. This version works with NW 4.x and other LANs as well. Requires an 80286 (16 MHz) or better processor, 1 MB of RAM, MS Windows 3.1 and a network. A site license varies from US\$60 for 5 users, to US\$1800 for unlimited users.

**Melb 8416 Balloons for Windows v3.0**

BALLOONS is a phrase game that is similar to old game "Hangman," but the interface is much more entertaining. Bright balloons, stereo sounds, 3-D buttons, text, menus and screens replace the old stick figures. You start out with six balloons. If you get a letter wrong, one of the balloons pops. If you get the phrase before all of the balloons have popped, you win. You can play with another player or by yourself. A phrase editor is provided so you can choose phrases to use. This is very useful for making, saving and using your own phrases. Balloons is ideal for ages 8 years and over. Requires a 386 or better processor and Windows 3.x or later. A sound card is optional, but a sound driver is required. Regn just US\$4.

**Melb 8417****Dino Numbers For Windows v3.30**

Dino Numbers for Windows is an arithmetic game for children aged 7 to 12. Help Derik the Dinosaur rescue cows from Rex the Tyrannosaurus by solving various arithmetic problems. Derik continually thwarts the shenanigans of Rex. The game has a unique "can't loose" feature, which means that a child will never loose points or any bonus items earned. Games include animation, music, and sound effects. Requires a 386 or faster processor, Windows 3.1/Windows 95 or higher, 4 MB of RAM, 6 MB of free hard drive space, and a mouse. A Windows-compatible sound card is optional, but recommended. Regn US\$20.

**Melb 8418****Dino Spell for Windows v3.20**

Dino Spell for Windows is a spelling skills game for children aged 7 to 12. Help Derik the Dinosaur rescue fruit from Rex the Tyrannosaurus by completing various spelling tasks. Includes animation, music, and sound effects. The game has been optimised for Windows 95, and is an international edition. Requires an 80386 or faster processor, Windows 3.1/Windows 95 or greater, 4 MB of RAM, 6 MB of free hard drive space and a mouse. A Windows-compatible Sound card is optional, but recommended. Regn US\$25.

**Melb 8419****Talking Numbers for Windows v1.0SW**

Talking Numbers is a program with real human speech that helps children between the ages of 1 to 8 learn how to say numbers, counting, remember phone numbers, addition, subtraction and much more. Talking Numbers also includes the 1-2-3 song. Colourful graphics and Easy Draw, encourage your child's creativity. Excellent female speech quality that works through your sound card speakers. This program gives children a great deal of encouragement. When a question is answered correctly, Talking Numbers replies with supportive comments, such as, "way to go," "great," "excellent," "super duper," "very good" and more. Your child's imagination will grow when they watch the colourful kaleidoscopes and collages in action. Requires Windows 3.1 or later, 4 MB of RAM, a VGA graphics card and monitor, a Windows-compatible sound card and a mouse. Regn US\$25.

**Melb 8420****Talking Teacher for Windows v1.0SW**

Learning to talk, read, write and how to spell is lots of fun with this interactive talking program. Talking Teacher will teach young children how to say early words like hi, mama, dada, I love you, drink, please, thank you, up, bye, etc, and how to interact with a computer. Talking Teacher will teach preschoolers the A-B-C song, how to say and understand the alphabet, how to find letters on the keyboard and how to recognise the letters in words. Talking Teacher will teach and test grades 1 to 12 on their weekly spelling words. You can change the spelling words to match your child's weekly words. Easy Draw teaches the child how to use a mouse and be creative. This program has positive reinforcement, when a question is answered correctly Talking Teacher will reply "way to go," "super duper," "excellent," etc. Talking Teacher is the first educational package that allows parents and teachers to record their own voice and use it in this package to teach their children and students. This is a breakthrough in educational software. Lead your child into the next century with this package. Requires Windows 3.1 or later, 4 MB of



RAM, a hard drive, SVGA graphics card and monitor and a Sound Blaster or 100% Compatible sound card. Regn US\$35.

### **Melb 8421/8422 Entombed for Windows v2.1 Episode 1 (2 Disk Set)**

In the tradition of *MYST* comes a complete ray-traced mystery of peril and intrigue: *Entombed*. In this graphic adventure game you play the role of an archaeologist who becomes trapped in an ancient tomb. Alone you must navigate your way through deadly traps, intricate puzzles and involved mazes, as you try to escape from this harsh captor, before it claims another victim. Deciphering information from the hieroglyphic inscriptions, you will discover that the previous civilisation was highly advanced, maybe you're not in a tomb after all, but a structure of more clandestine intentions. You also discover the remains of others that have been here before you. Grave robbers? Fortunately you find the diary of another explorer who also became trapped in the tomb, many years ago. It proves to be invaluable in your quest to survive. So what became of the race that created this vast underground metropolis, and what is its purpose? Communication with another realm? Time travel? Prepare yourself for a new dimension in entertainment and design, when you enter *Entombed!* *Entombed* boasts 640x480 hi-res game interface, breath taking ray traced graphics, digital audio and five intricate levels. This is the first episode of a five episode set. Requires Windows 3.11 or Windows 95, a mouse, 2 MB of RAM, SVGA graphics with 256 colours, and a 386 or better processor. Regn US\$40.

### **Melb 8423 Scrabout for Windows v1.0**

This game is based on the Milton Bradley game of *Scrabble*. You can have from one to four players, and you can play against others or against the computer, at any difficulty level. You can modify the dictionary, or use your own. The rules of *Scrabble* apply to this game but you may modify the rules, if required (and if the other players agree). *SCRABOUT* requires a PC compatible running Windows 3.1 or later. Regn US\$10.

### **Melb 8424 Ad Layout Design For Windows**

*Ad Layout Designer* for Windows enables you to create small display ads in Windows. You can use as many True Type Fonts as you want, with clip art, line drawing and more, to create eye-catching advertisements. The program features a simple interface which enables you to draw lines, boxes and circles, and then fill or shade them, overlay text on clip art or filled boxes and circles, create camera-ready layouts at 100% & 200% size, ad layouts up to 7.5 in x 8.5 in, the ability to use any measurement system, and a WYSIWYG display. Requires a 386 or faster processor, Windows 3.1/Windows 95 or later, a hard drive, a mouse, 2 MB of RAM, a VGA or better graphics card and monitor and a Windows compatible printer. Regn just US\$30.

### **Melb 8425 NeoDraw v2.1**

*NeoDraw* is an affordable, vector-based drawing application for Windows 3.x and Windows 95 that enables you to quickly and easily add attractive line drawings to all your document and illustration projects. You can even include bitmap pictures from your scanner or paint program to produce professional-quality results. Constructing charts, brochures, invitations, catalogues, and other projects is easier than ever. *NeoDraw* enables you to import bitmap, plotter and other files. Features

include standard drawing tools, clip art stamp pad, dimensioning, shape warping, masking, distortable text, align objects to path, vector splatter, multiple drawing layers, morph/blend between shapes, assemble hollow and complex shapes, star/ray shape tools, guidelines, skew, and much more. And you can customise the on-screen toolbars to fit the way you work. Requires Windows 3.1 or later, Windows 95 or later, a mouse and 4 MB or more of RAM. Regn US\$50 for a single user, US\$150 for a 5-user license or US\$200 for a 10-user license.

### **Melb 8426 Neosoft's Icon Editor v1.1**

*NeoSoft's Icon Editor* is a comprehensive utility for creating and editing Windows .ICO format icons. An extensive range of tools are included like brushes, lines, circles, rectangles, flood fill, rotate, flip, area select, text, nudge and zoom. Transparent areas may be easily painted onto the icon image to allow background colours to show through. *NeoSoft's Icon Editor* easily works with multiple icons at the same time for easy cut and paste between images. These powerful functions and *NeoSoft's* easy-to-use interface make painting your own icon-sized pictures easy. The *NeoSoft Icon Editor* imports .BMP format bitmapped images and imports icons contained within Windows program .EXE and .DLL files. It features context-sensitive help, undo and Windows clipboard support. Requires Windows 3.1 or higher, or Windows 95 compatible. Regn US\$20.

### **Melb 8427 Guitar Teacher for Windows v2.03**

*Guitar Teacher* is a system for displaying guitar-chord diagrams. Each chord can be quickly selected and instantly displayed. The program supports Sound Blaster and other MIDI compatible audio cards, seven chord formulas (major, major 7, minor, minor 7, suspended 4, suspended 4), six alternatives for each chord, 504 chord diagrams in total, formula and voicing displayed, right- or left-handed fingering, includes a guitar tuner and instructions on tuning and chord structure. Requires Windows 3.1 or later, VGA or better video card and monitor, and a mouse. MIDI compatible sound cards supported but not required. Regn US\$15.

### **Melb 8428 ClusterView v2.02**

*ClusterView* is a Windows 95 application designed to help handle text searching tasks in a group of large files. The program enables you to group documents in a "cluster," and enables you to consult simultaneously various files you decide to link together according to your needs. Various operations (other viewing) can be applied to the documents of a cluster. Most of the keyboard commands are similar to/compatible with the UNIX utilities named *MORE* and *LESS*. File viewing is not limited by any constraints of size. Requires Windows 95 or Win32s for use under Windows 95. Regn FF130 (US\$20) for a single license.

### **Melb 8429 Drag and File v1.0**

*Drag and File* is a very powerful file manager for Windows 95 and NT 3.51. Besides the standard copy, move and delete functions, *Drag and File* enables you to perform these operations on multiple *Drag and File* windows in one operation. You can select directories in up to 12 *Drag and File* windows and just list the files in the selected directories. You can also list the files for an entire drive or combination of drives. From these listings you can also perform all standard file operations, as well as toggle on/off the display of duplicate files only. You can associate data files with more

than one program. This upgrade includes a completely configurable toolbar, network support, formatting and disk copying, file descriptions, file icons and a built-in DOS command line. Under Windows 95, *Drag And File* has full access to the Win 95 shell. You can bring up context menus and drag and drop with the right mouse button and create shortcuts. Requires Windows 95 or Windows NT3.51 or later. Regn US\$35.

### **Melb 8430 WINOCR v2.1**

*WINOCR* is an Optical Character Recognition (OCR) program. It works with bitmaps produced using low cost hand-held scanners. It is intended to provide an effective method of data entry for programmers and others who require OCR. Windows 3.1 or later and 2 MB of RAM. Regn UK£37.50

### **Melb 8431 WINSNOOP v1.0**

*WINSNOOP* enables network administrators to capture information on a user's Windows 3.1 Program Manager desktop status. You can view the contents of your user's Group files, icons, icon properties and .INI files. *WINSNOOP* consists of 2 data collection agents, or "snoopers," called *GRPSNOOP* and *INISNOOP*, and a set of (Paradox) database tables (*GROUPS.DB*, *ICONS.DB* and *INIFILES.DB*). This demonstration version of *WINSNOOP* has the following restrictions: *GRPSNOOP* will only read the information for the group files *MAIN.GRP*, *ACCESSOR.GRP* and *GAMES.GRP*, and *INISNOOP* will only read .INI file contents for the files *PROGMAN.INI* and *WIN.INI*. The information provided by *WINSNOOP* enables you to control the use of unauthorised software, determine software licensing requirements, detect incorrect software configuration (icon properties or .INI file settings) and/or maintain a database for help desk personnel. All of the query/reporting facilities of *Paradox* are available to you. *WINSNOOP* works on most common networks. Workstations must be running DOS 3.1 (or higher) and Windows 3.1, using Program Manager as the shell. Borland's *Paradox* for DOS V4.0 (or higher), or *Paradox* for Windows V1.0 (or higher) is required to access and use the *Paradox* tables created by *WINSNOOP*. Regn US\$80.

### **Melb 8432 HELLLP! v2.7**

*HELLP!* is a help file authoring tool for Word for Windows. Designed for user friendliness, it even keeps track of context strings so that you don't have to. It supports both main and secondary help windows. It will automatically generate a top level Table of Contents with hypertext jumps to your topics already in place. You can add additional hypertext jumps and pop-ups by highlighting the places you want to jump from and pointing to the places you want to jump to. You can also add sound effects and launch other programs from help files. Requires Word for Windows 2.0, 6.0, 7.0 or later and the Microsoft Help Compiler (available from Microsoft), an 80386 or faster processor, MS Windows 3.1/Windows 95 4 MB of RAM, a VGA or better graphics card and monitor and a mouse. Regn US\$20. □

**See the mailer for a list of earlier, popular shareware and for costs and ordering details.**



# Special interest group meetings

**MELB  
PC  
USER GROUP**



## CLUB ACTIVITIES

(see mailer for calendar)

### Access (Database)

#### Ray Watson

(03) 9883 4382 AH  
Fax: (03) 9576 9591  
2nd Monday, 6.30 pm  
Melb PC SIG Room

### Assembly & Other Languages

#### Felix Hofmann

[felix@melbpc.org.au](mailto:felix@melbpc.org.au)  
(03) 9523 5400 AH  
1st Thursday, 7.00 pm  
Melb PC SIG Room

### Ballarat

#### Laurie Dixon

(053) 32 4492 BH & AH  
1st Thursday, 7.30 pm  
(except school holidays)  
Ballarat East Secondary College

### Basic

#### Andrew Callaway

(03) 9619 4067 BH  
4th Tuesday, 7.00 pm  
Melb PC SIG Room

### Bendigo

#### Russell Collins

(054) 39 3708  
2nd Wednesday, 7.30 pm  
Girton Grammar School  
(Computer Room)  
105 Mackenzie Street  
Bendigo (Vine Street entrance)

### C/C++ Programming

#### Ken Holmes

(03) 9583 1504 BH & AH  
4th Monday, 7.00 pm  
Melb PC SIG Room

### Clarion

#### Alan King

(03) 9882 8044 BH  
4th Wednesday, 6.30 pm  
Suite 9, 96 Camberwell Road  
East Hawthorn  
(Through wire gate and up the stairs on the south-east side of Roseberry St)

### Communications

#### Philip Lew

(03) 9822 2998 BH  
(Brief calls please)  
2nd Wednesday, 7.00 pm  
Melb PC SIG Room

### Computer Music

#### Murray Grigg

(03) 9318 2834 AH  
2nd Thursday, 7.00 pm  
Melb PC SIG Room

### Daytime

#### Felix van Lier

(03) 9525 3962 BH & AH  
2nd Thursday, 10.00 am  
Melb PC SIG Room

### East

#### Keith Lane

(03) 9872 5822 BH  
(03) 9762 6644 AH  
(03) 9761 1414 Fax  
[keithln@melbpc.org.au](mailto:keithln@melbpc.org.au)  
Asst convener:  
Stewart Tanner  
(03) 9879 9776  
2nd Monday, 7.30 pm  
Unit 11, 27-33 Thornton Crescent, Mitcham at the offices of Haldatec Pty Ltd.

### Frankston

#### James R Martin

(03) 9781 5463 AH  
[jmartin@melbpc.org.au](mailto:jmartin@melbpc.org.au)  
2nd Monday, 7.30 pm  
Frankston Junior Football Club  
Melway ref: 106 C 1  
Frankston

### Freeware and Shareware

#### Doug Westcott

(03) 9898 2765 AH  
[dougw@melbpc.org.au](mailto:dougw@melbpc.org.au)  
Co-conveners:  
Tony James, Bill McDonald  
3rd Tuesday, 7.00 pm  
Melb PC SIG Room

### Graphics

#### Yahya Abdal-Aziz

(03) 9562 1023 AH  
(brief calls please)  
(Asst convener: Kevin Gorie)  
3rd Monday, 7.45 pm  
We meet in the bungalow at the rear of Nadish Naoroji's home, 8 Park Crescent North Caulfield

### Hardware

#### Felix Hofmann

[felix@melbpc.org.au](mailto:felix@melbpc.org.au)  
(03) 9523 5400 AH  
3rd Wednesday, 7.00 pm  
Melb PC SIG Room

### New Users, Central

#### Graham Paul

(03) 9417 5315 AH  
3rd Monday, 7.00 pm  
Melb PC SIG Room

### New Users, East

#### Doug Brooke

(03) 9822 3458 BH & AH  
2nd Tuesday, 7.30 pm  
St Mark's Anglican Church,  
Cnr Canterbury & Burke Rds  
Camberwell

### OS/2

#### Andrew Keil

4th Wednesday, 6.30 pm  
Melb PC SIG Room

### Quicken

#### Viv Martin

[martinv@melbpc.org.au](mailto:martinv@melbpc.org.au)  
(03) 9551 4838 AH  
4th Thursday, 7.00 pm  
Melb PC SIG Room

### Retired & Interested Persons

#### Ken Thomas

(03) 9803 6229 BH & AH  
4th Friday, 10.00 am  
(Note, not last Friday)  
Lutheran Church  
25 Cypress Avenue  
Glen Waverley

### Turbo Pascal

#### Ross Hall

(054) 28 6470 AH  
(03) 9699 4000 BH  
2nd Tuesday, 7.30 pm  
Melb PC SIG Room

### UNIX

Vacant, acting convener:

#### Yahya Abdal-Aziz

(03) 9563 1023 AH  
(brief calls please)  
1st Tuesday, 7.30 pm  
Melb PC SIG Room

### Waffle

#### Vince Thornton

018 171 344 or  
Andrew Callaway  
(03) 9619 4067 BH  
"Eat-ins" held after main monthly meeting. April: Taco Bills (Mexican), 375 Clarendon St, South Melbourne, full lic. BYO wine, Nachos and DIY Tacos as entree.

### Warragul

#### Mark Withers

(056) 25 4165 AH  
1st Friday, 7.30 pm  
Function Room  
Warragul Leisure Centre  
21 Burke Street, Warragul

### Windows

#### Mikhail Bortolotto

(03) 9888 2360 AH  
1st Monday, 7.00 pm  
Melb PC SIG Room

### Word Processing/DTP

#### Loraine Briggs

(03) 9532 8295 AH  
014 693 882  
2nd Friday, 7.30 pm  
Melb PC SIG Room

The Blind Citizens Support Group meets at 7.45 pm on the 3rd Tuesday of each month, at 1st Floor, 87 High Street, Prahran. For further details, please contact John Machin, on (03) 9569 1440 (BH).

Conveners: If you would like your e-mail address printed in this list, please send an e-mail message to: [editor@melbpc.org.au](mailto:editor@melbpc.org.au)



# SIG meeting reports

## CLUB ACTIVITIES

coordinated by Keith Beresford



### Daytime

» **Felix van Lier**

At our inaugural meeting in February, we were gratified to welcome 15 participants. We started with a discussion of what our future program should be. We found that nobody was using Windows 95 so we decided that among our forthcoming meetings we would include both Windows 3.11 and DOS 6.22 for further evaluation.

Generally the level varied from novice to fairly experienced computer users, which was good as the more experienced members can pass on their knowledge to the other members of our group.

After our initial discussion we looked at a program called *Computer Works*. This is a commercial program which illustrates—both graphically and with corresponding text—the basic hardware in some detail. There are literally some hundred examples, with a detailed index giving ample choice of particular hardware which could be of interest.

How many people really know the components of a hard disk, floppy, disk, motherboard, CPU, etc? All the answers were readily and easily understood.

Next we looked at the excellent program notes prepared by our expert friend, Doug Brooke. The notes explain, in considerable detail, the functions of AUTOEXEC.BAT and CONFIG.SYS. This again will open up avenues for further discussion.

Notes were also supplied on the boot process. Again, helpful as very few novices know what happens when you boot up the computer. After all this it was time for tea.

We also looked at the various formatting and copying programs. Not many participants were aware of the excellence of such programs as *Formatqm* and *Copyqm*.

As communications is so important we had a very brief discussion regarding the BBS, and the Internet. There is so much involved I approached Phil Lew, the Communications SIG Convener, who has kindly agreed to come and talk to the Day SIG about communications in general at our April meeting. It was all a good beginning, I think our friends enjoyed

themselves with convivial company and a broadening knowledge of computer operations.

We look forward to meeting you all again in April.

### East SIG

» **Keith Lane**

Here is a point by point summary of our meetings so far. The first meeting decided the following:

- Conveners, time and place of meetings (see details on page 44.)
- Local businesses to be approached about discount deals
- The first half-hour to be a question and answer session
- The February meeting to be Warren Kent speaking on Project Management. He will define what is meant by a project and go on to demonstrate the use of MS Project as a tool to get projects finished on time and within budget.
- The March speaker should talk about design in desktop publishing

### February meeting

Our second meeting attracted more participants and we put into effect what people had wanted at the first meeting.

- In questions and answers period, the predominant problems seemed to be with Windows 3.x. The general recommendation was to install Windows 95 as most of the problems discussed had disappeared when members had upgraded.
- Warren's lecture was first class and most attending were impressed with the power of MS Project and seemed very keen to find applications in their own work. Warren had prepared the material most thoroughly. If you have heard him speak you know how interesting he makes the topic.

### March meeting

At the March meeting John Naismith, a local graphic designer spoke, giving design hints for the Internet and desktop publishing.

If you care to come along to any of our meetings on the second Monday of the month you will be very welcome.

There is a \$4 charge for venue, biscuits and bottomless coffee and tea.

For further information contact Keith Lane (details on page 44).

### Freeware & Shareware

» **Doug Westcott**

This SIG introduces members to the wide variety of Freeware & Shareware programs available from the club's library. Usually three or four programs are demonstrated each month and attendees are given the opportunity to purchase one disk from these programs for only \$1.

At the February meeting we saw *Whoop It Up*, *Fuzzy's World* and *Software Book for Windows*. *Convert V3.0*, an additional program then not currently available from our library or BBS was also demonstrated. In the coming months several members have volunteered to present programs that they have found interesting, which should add to the variety of presentation and range of programs demonstrated.

Details of the programs to be presented each month will be posted to message areas 10 and 16 on our BBS about one week prior to the meeting.

### Hardware

» **Bill Kessler**

The Hardware SIG meeting held at the club rooms was attended by 20 people.

Convener Felix Hofmann started the meeting with announcements and a question and answer session. Questions discussed were

- What does the term TAG RAM stand for?
- Can someone look at my CMOS. I have a problem?
- A developing fault on my monitor changes the colour with time.
- Should I buy a dual- or quad-speed CD-ROM?
- The Window95 CD-ROM has a few files missing. Can anyone help me with the files necessary to run PPP?
- The setup on my Olivetti has been changed. What has been done?

The presentation was made by a company called *Smart Systems*, which provides intelligent home automation.



Presenters were Michael Staindl and Kay Wennagel. They were kind enough to bring along a generous supply of pastries for coffee break. We were shown a package called *Jeeves*. Jeeves converts a windows-based PC into a powerful security and home management system. Features include

- Complete home security.
- Garden and perimeter security.
- Total Climatic Control.
- Lighting and appliance sequencing.
- Utilities cost control.

It has a Visual Basic-style interface with a house plan with icons of control elements which can be easily modified. It also has devices which can be used to avoid cabling expenses in the house.

After the presentation question and answers the hand on hardware session began. This is where faulty computers are brought in and members help solve problems.

A good night was had by all.

## Quicken

» *Graham Comitti*

Twenty-three people attended the February meeting, with a number of new faces turning up. Unfortunately we were unable to get the overhead projector working due to a "missing" part, so the proposed import/export presentation could not proceed and the night became a Q&A night. It turned out to be a very informative night with both old and new users "putting in".

Among the topics discussed were

- The WIN.INI and QUICKEN.INI files in relation to Billminder, Autobackup and Autocopy features of *Quicken*.
- The setting up of one physical printer on two different printer drivers so as to print two different styles of cheques.
- Setting up passwords by dates or files.

Viv was pleased that a member had brought along a "modified" copy of his file in which he was having trouble getting *Quicken* to do what he wanted to do when amortising a loan. Stock control in *Quickbooks* was also discussed.

At our March meeting one of the topics will be ways of exporting/ importing data from one file to another. Remember anyone having suggestions for our meetings is most welcome to put their ideas forward. Viv would like to see more of the problems that people are having getting *Quicken* to do what they want it to do. Bring along a disk so that we can actually try and solve the problem during the meeting.

Quicken's web page <http://www.qfn.com/>  
Intuit's BBS (02) 562 7992

See you at the next meeting, Thursday 28 March, 7 pm.

## Retired & Interested Persons

» *Bill Cooney*

A Happy New Year to all our readers! A bit late I know but sincerely meant for all that. The Rippers were again well attended at the February meeting, 116 present including some 10 new members. This SIG has a unique character because the emphasis is on enjoying the hobby and pure enjoyment aspects of computing, without any of the pressures of achieving maximum production. It caters for all interests and includes all levels of expertise, from beginners with their first system to longtime user/experts who are so willing to help with their wide knowledge and experience. If you are retired or just seeking friendship and a bit of guidance in the wonders of the computer world, just look us up. As an indicator of the interests of this SIG, Ken took a rough census of various users among us and listed 90 Windows users, 15 with Win95, 60 with modems, 15 use the Internet, 20 programmers, 30 DTP users, 5 gamers, 40 spreadsheet users, as well as a large group of genealogy, Word, WordPerfect and CD users. That's a pretty wide interest group, eh?

We were pleased to have Stan Johnstone, our Melb PC Secretary, as our guest speaker. It is all too rare that we have people from the office out to see us. Stan gave us a rundown on his recent visit to the States and the marvellous things he saw there and the people he met. Thank you, Stan, and please feel

welcome to come any time for a visit. Next month's topic will be Win95 word processors and word processing in general, with a chat about spreadsheets at the April meeting.

I would like to send a greeting here to Ron Wilby who has inspired many users to take that first step and helped countless beginners through his articles in *PC Update*. I am told that Ron is not too fit at this time and spends a bit of time at his computer at home browsing the BBS. I am sure he would love to find the odd message addressed to him there, so leave him a call next time you log on.

## Turbo Pascal

» *Ross Hall*

Topics for the first meeting of 1996 for the Turbo Pascal SIG included:

- The use of the utility GREP for finding character strings over a number of different files. This program is provided as part of the Borland Pascal package, and although its command line operation harks back to its UNIX roots, GREP is extremely flexible. With the use of "regular" expressions and a multitude of switches, its ability to find a particular search string very quickly over a large number files is excellent. The standard Borland Pascal example source files include a version of GREP with a Turbo Vision interface and one with a Windows front end.
- The ceasing of a windows program when a fatal error occurs. How to do this elegantly so that a descriptive message is displayed and all windows are neatly closed down.
- Cable TV and how the advent of cable modems could open up a whole new aspect to information transfer to and from the home. Also techniques for video compression and also wide screen TV and how it works.
- And finally, Windows 95 memory management.

The next meeting will be on Tuesday 9 April at 7.30 pm—right after Easter Monday. Hope to see you there. □

# Fill this space!

## SIG REPORTS WANTED

**O**n page 40 of this issue there is a list of 25 active topical or area-based SIGs. On pages 41 and 42 there are reports from just seven of them.

Presumably the other 18 SIGs do something useful or interesting, so why not tell the membership at large what you are about to do, or have just done. Who knows, you may even get more members to come to your SIG meetings!

You don't need to be a professional writer or a poet laureate—just jot down your notes as best you can, submit them via the BBS or on disk (as early as possible) and the *PC Update* team will do their best to sort it all out.



# For the bookshelf

## BOOK REVIEWS



### The Internet for Kids

» reviewed by Lesley Howells

Why is a middle-aged woman, new to the Internet, reviewing a book about the Internet and written for children? Well, I do have more than 20 years experience working in school libraries, and this is the book I used to first find my way in the—to me—bewildering new world of communication and information.

The book is well presented and well written with clear instructions about interesting Internet projects using the World Wide Web, Gophers, Usenet newsgroups, Telnet, and e-mail. All the terminology is explained in easy-to-understand and concise language. The resources described include those suitable for both primary and secondary students; they are listed with *URLs* arranged by subject, such as fun and games, literature and writing, electronic art, sports and hobbies, government, geography and environment, and science. Its not all serious stuff. I checked out the *URLs* and found some addresses had changed, but could still find most of those using *www Worm*.

Even though children could use the book themselves at home, they would need help from an adult. The authors make no attempt to teach kids how to configure programs or set up hardware to connect with the Internet. It is presumed they will have help from a parent, teacher or system administrator.

A drawback for Australian children is the American bias in the text. The resources for government are all US; most of the sites are in the States. Some are excellent—the White House, the Smithsonian Institution, NASA education site, or the Froggy Page—but it would be a great pity if some of the great sites in Australia are missed.

*The Internet for Kids* comes with a disk containing a copy of *NetCruiser* configured for a US connection. In spite of a special offer on fees, none of that is of much use here. I am told that *NetCruiser* can be modified for use with an Australian provider, but not by children.

A useful book for children in school years 5–10 and for teachers.

Deneen Frazier, with Dr Barbara Kurshan and Dr Sara Armstrong:

*The Internet for Kids*

ISBN 0 7821 1741 4

Published by Sybex

314 pages plus disk

RRP \$48.00

*Lesley Howells is aiming to become a cyberarian. After being a children's librarian she became a library technician at Mullauna College where she has been for over 20 years.*

### A career in IT

» reviewed by Major Keary

Much used—and sometimes no more than a *buzz-word*—Information Technology has no precise definition. In fact IT did not rate a mention in computer dictionaries until quite recently: “A general term used to refer to all aspects of technology that encompass the creation, storage, display, exchange, and management of information for business, artistic, scientific, recreational, or personal use” (Prentice Hall's Dictionary of Computing). Universities offering courses in IT will, in effect, say much the same, but with more and bigger, grander words.

When you see a book that deals with:

Workflow management,  
Hypermedia,  
Document browsing,  
Electronic document interchange,  
Standards-based publishing,  
Document search and retrieval,  
Data base publishing,  
Electronic reference documents,  
Internet publishing, and  
Smart documents

it comes as a surprise to find the title is, *Desktop Magic*. I'm sure the author—eminently qualified to write about IT—did not intend to hide a very useful resource away from those teaching and wanting to work in the field.

*Desktop Magic* concentrates on the management of electronically prepared and published documents. It covers printing, and deals with serious DTP software and PostScript; however, its main concern is with the use of computer technology in document preparation. Standard generalised markup

language (SGML), hypertext, and hypermedia are described in depth.

Apart from its value as a resource, there is an interesting chapter, *Electronic Publishing is Changing Careers*, in which various aspects of what we perceive as IT are discussed as potential areas of employment. Document analysis, electronic document design, publication programming, document management specialists, multimedia specialists, animation, interactive video, information research, editing and, of course, writing are among the particular fields. The author does not simply mention them, but provides sample job descriptions. If you happen to fancy yourself as a technical publications manager, then you will find that your qualifications should include:

- In depth understanding of digital imaging (scanner, display, and output devices),
- Complete familiarity with colour laser printing,
- Knowledge of binding technologies,
- Understanding options for outsourcing work, and
- Familiarity with business aspects of printing.

Careers advisors, and managers responsible for hiring IT personnel, will also find it a useful resource. There is a list of IT-related journals, on-line conferences, and organisations.

Anyone studying IT-related subjects should find it a useful resource. A good acquisition for libraries. Secondary schools should consider it as a career information resource.

John Wood: *Desktop Magic*

ISBN 0 442 01772 3

Published by Van Nostrand Reinhold

368 pages

RRP \$65.95

### Learning GNU Emacs

» reviewed by Major Keary

O'Reilly publications are the benchmark for technical books. I can recollect having seen only one typo in some dozen O'Reilly titles. Typography and overall design is excellent, binding is how all reference books should be in paperback (lays flat at any opening), and



the writing style is of the highest order.

The quality of information is evidenced by the length of time their books remain in print. *Learning GNU Emacs* was first published in 1991 and has been in print ever since.

Emacs (the name stands for *Editing Macros*) is a remarkably powerful text editor created for the UNIX environment in 1975. There are several implementations, but the most popular is GNU Emacs, distributed by the Free Software Foundation. There have been ports to DOS, both commercial (*Epsilon*) and freeware (*Freemacs*).

Why learn Emacs? In some environments it is a necessary skill, and for people in that position *Learning GNU Emacs* is the definitive manual, even if another implementation has to be used. Emacs is worth looking at by those who program in various languages; it enables many language-specific functions to be turned into Emacs commands through the use of its language mode facility.

Similarly, there are modes for use in marking up text for troff, nroff, and TeX by automatic completion of macro pairs.

However, this is not about Emacs *per se*, but to tell those interested in using it—or who need a desk reference—that here is a comprehensive, comprehensible, and digestible description. It has a table

that sets out which parts to read for particular purposes (casual users, programmers, writers, mail, etc). Chapters cover basics, file editing, search and replace, buffers and windows, text formatting, writing macros, customising, Emacs as a work environment, and Emacs for programmers.

Cameron and Rosenblatt:

*Learning GNU Emacs*

ISBN 0 9371175 84 6

Published by O'Reilly & Associates  
411 pages

### Learning the vi Editor

» reviewed by Major Keary

Now in its fifth edition, this is the definitive for *vi*, a UNIX screen editor (as distinct from those that show one line at a time). Just about every implementation of UNIX comes with *vi* (it stands for visual editor).

Why learn *vi*? Apart from necessity (some people are obliged), the commands are much the same as encountered in other UNIX editors. For those who find text-based (such as UNIX shell) access to the Internet more efficient than Windows for many purposes, familiarity with *vi* commands is necessary.

Anyone accustomed to text editors and word processors written for non-UNIX

platforms can be expected to find *vi* difficult. It is something like asking a pianist to pick up a violin. At least *vi* lends itself to learning just enough for limited purposes. Indeed, most users are unlikely to be aware of its full potential and the presence of the *ex* line editor.

If you need to learn *vi*, or want a useful desktop reference, then this is the book to get. It has a handy tear-out card with commands arranged in alphabetical order and by class (movement, editing, *ex* commands, exit commands, and command line options). Chapters cover basic editing, getting around the screen, global search and replace, shortcuts, advanced editing with *ex*, and customising *vi*.

Like all O'Reilly books, everything about it is beautifully done.

Linda Lamb: *Learning the vi Editor*

ISBN 0 9371175 67 6

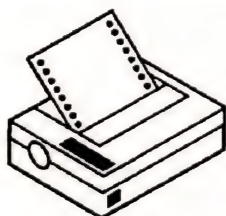
Published by O'Reilly & Associates  
173 pages  
RRP \$44.95

### The Magic Garden Solutions

» reviewed by Major Keary

Quite some time ago I reviewed *The Magic Garden Explained*—a Prentice Hall title published in Australia—which is a “technically-oriented description of

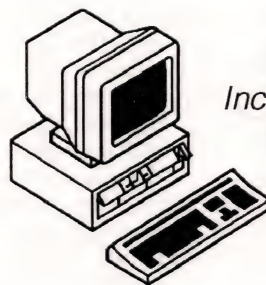
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how the UNIX SVR4 operating system functions". At the end of each chapter a number of exercises are set, but space and time constraints worked against inclusion of the solutions.

Now they are available in a companion volume. Not just raw solutions, but annotated and accompanied by comment. The code is fully functional and much of it useable. Apart from teachers and students of UNIX, those with a serious interest in C should find it a useful resource. The text of the original exercises is repeated, so it is not necessary to have the main book.

Bernie Goodheart & James Cox:

*The Magic Garden Explained  
Solutions Manual*

ISBN 0 13 207556 3

Published by Prentice Hall

270 pages

RRP \$24.95

## Data Communications

### » reviewed by Major Keary

Gilbert Held is a widely published author on communication related topics, from data compression to T-Carrier multiplexing. I am not sure when *Data Communications*—jointly written by Held and Ray Sarch—was first published, but it has just been released in its third edition. It is not designed for readers with a casual interest in data communications (the price will deter all but the most determined dilettante). If, however, one is serious about the subject, then this is a reference well worth considering.

It is suitable as a self-teaching resource (there are questions at the end of each chapter, with answers in an appendix), as a reference for students of computer science and communications-related subjects, and for teachers or instructors in data communications.

The subtitle, *A comprehensive approach*, is an apt description. It begins with an introductory overview of the development of communications and "computational machinery, moves on to the role and use of terminals and PCs in data communications, and then proceeds to the *real* subject.

Chapters deal with concepts of data communications, transmission and equipment basics, interfacing data transmission devices, LANs and internetworking, functional networking relationships, data concentration, network topology, network diagnostic and monitoring, network planning, and include discussions of software.

Some of the discussion is oriented to North America—such as chapters on regulation agencies, the communications industry, and cost considerations—but that is a small proportion of the book; the chapter dealing with cost and selection considerations does provide a

framework, so to speak, for non-American users to compare different carriers and systems.

For a technical reference the writing is exceptionally good. There is no attempt to dilute the technical nature of the book, but the discussion is easy to follow provided one takes the trouble to become familiar with communications terminology. Gil Held is very good at that kind of technical communication, and the people responsible for the editing of McGraw-Hill's computer communications series have done a good job. Illustrative material is used with discretion and provides good support for the text.

It is one of the few publications that explains ITU-T (successor to CCITT). The *International Telegraph Union* (ITU) was formed in 1865 and in 1934 the name changed to *International Telecommunication Union*. The Consultative Committee on International Telephony and Telegraphy (CCITT) was formed within ITU and was responsible for *recommendations* that bear the familiar X prefix (X.500, for example). In a 1992 reorganisation CCITT functions were assigned to the ITU's *Telecommunications Standardization Sector* (ITU-T). There is a second Sector, ITU-R (*Radiocommunication Sector*).

*Data Communications* is a reference that should be in any library (educational or corporate) with holdings on communications. It is not just an introduction, but a comprehensive resource for communications students and practitioners. It is also a reference for those who, from time to time, need detailed information about some aspect of data communications.

Gil Held and Ray Sarch

*Data Communications—  
A Comprehensive Approach* 3rd edn.

ISBN 0 07 028049 5

Published by McGraw-Hill

587 pages hardcover

RRP \$150.00

## On-Line in OZ

### » reviewed by Bob Burt

This book seeks to introduce the common features of the four online networks available in Australia at the end of 1995, namely the Internet, CompuServe, eWorld and MSN (Microsoft Network). Beyond that, the special attributes of each system are explored, so that you can decide which environment appeals the most. Then, if you elect to try out one of the services, the author tells you the best way to go about it. The book includes a range of special offer coupons and a couple of starter disks offering free online time if you register.

Once you have decided on your network, you can use the book as a travel guide, which is particularly

beneficial for those selecting the Internet directly.

Part One is, understandably, an introduction to computer networking, including a glossary of the acronyms, jargon and general terminology the newcomer will come across. There is discussion of the choice of services, how expert you need to be, what hardware and software is required and so on.

Part Two deals with The Internet, and, not surprisingly, is the most substantial part of the book, as much of the material in it will be of interest to all online participants, irrespective of whether they are using an Internet service provider or elected to use Compuserve, eWorld or MSN. Strengths and weaknesses of the Internet are discussed and the connection requirements are explained. E-mail, World Wide Web, FTP, newsgroups and mailing lists and Interactive chatting (IRC) are all given the full treatment. Finally, a taste of what's out there on the Internet is offered, including the "best" of Australian and New Zealand Web sites. Web sites are given for eight areas of interest, such as Arts and entertainment, Commerce, shopping and other business, Travel, sport and hobbies and Education and academia.

Part Three covers Compuserve, its strengths and weaknesses, getting connected, its services and what's on it.

Part Four deals with eWorld, again its strengths and weaknesses, access and charges, navigating the town square and its content.

Part Five addresses MSN, discusses its strengths and deficiencies, deals with content and access, describes how to navigate, categorises what is available and the costs of the service.

There are three appendixes, first a list of *Internet Access Providers in Australia* (extracted from the Web), then *Internet Access in New Zealand*, a quite detailed organisational exposition and finally, *On Australia independent solutions providers* (MSN publishers).

The layout of *On-Line in OZ* is good, the content is sound and the book is well designed and illustrated. Check out the connect time charges for OzEmail though, if you are interested in using their services—I doubt their rates per hour of access are \$3 more at Off-peak than at Peak time, as published.

I found the book of great interest, as this is the first time I have seen comparable information on the various services. I believe this factor will appeal to many others too.

Sue Lowe: *On-Line in OZ*

ISBN 0 201 44364 3

Addison-Wesley Publishing Company

276 pages

RRP \$39.95



# Animal Information Management Programs

## SOFTWARE REVIEW

Bob Burt



**A** rather enigmatic title for a software review? Yes, I would have to agree, but I thought it preferable to the more usual approach, to name the software being reviewed. In this case, three software programs called BOVID 3, CANID and PHYTOX. You see what I mean?

Actually, the backbone of *Animal Information Management Pty Ltd* is a small team of veterinarians, who, close to ten years ago, commenced working on their first diagnostic computer program, BOVID, developed initially as a teaching aid for veterinary students.

The programs are highly specialised; they are specifically designed for use by veterinarians. However, the manner in which a group of experts in their various fields have pooled their resources to create the required diseases databases and developed techniques to match a host of symptoms and treatments with them could well be of more general computing interest.

### Program style

Each of the programs is DOS-based and is refreshingly modest in its hardware requirements

- 80286 or higher
- MS-DOS 3.0 or above
- 540 KB RAM
- About 6 MB hard disk space (each)
- Mouse (optional)
- Printer (optional)

Even if you have the latest top-notch computer running Windows 95, you will find that these programs can be easily installed from, and will run well in, the standard DOS shell.

Each program is installed from one 3.5-inch disk. There is a measure of copy protection, in that the program can only be installed from the Master.

Screen layouts are in a style familiar to all but very inexperienced computer operators. In fact, Turbo Pascal users will recognise the Borland style of menu lists and scrollable windows. There is a *Menu Bar* across the top of the screen, with menus starting with *File* and finishing with *Help* and a *Message Line* across the bottom, showing the major task for the particular screen highlighted in the centre. The F1 key is reserved for context-sensitive Help, Esc, Tab and Shift+Tab uses are explained in the *Message Line* when appropriate and menus are opened by using Alt plus the highlighted letter of the menu option. If you have a mouse installed, you can click away with this instead of using the keyboard.

BOVID 3 and CANID have an additional method of providing help, in the form of a Tutorial, developed as a guided tour.

The *Printer* options are rather limited—you have the choice of either Dot Matrix or LaserJet. However, the LaserJet selection is suitable for the HP DeskJet series and for dot matrix printers you can change some of the printer codes.

### BOVID 3

This program deals with cattle diseases. It gives the user quick access to expert opinion on clinical syndromes, postmortem findings, confirmatory tests therapy and management of all known diseases of cattle. This is an undertaking of some magnitude since BOVID 3 holds the records of over 1000 diseases,

**...a group of experts in their various fields have pooled their resources...**

diligently gleaned from references in the major standard texts on veterinary medicine. Further, the information is being continuously modified as new and revised information becomes available, leading to the release of annual upgrades.

Using BOVID 3, you can easily check all the recorded findings for every known cattle disease, complete with a score estimate for how often each sign is seen. For each disease, you can view summaries of its epidemiological features, the confirmatory tests, recommended treatments, control strategies and references in major texts and estimates of how common the disease is in cattle.

The main thrust of the program, is its assistance in identifying the most likely diseases from cattle presenting with particular symptoms. After entering a description of the patient you select and tag up to seven of the most important signs to start a differential list. Of these, you identify one as *Critical*.

You then select the *Interrogation* command. From its window a series of questions on clinical findings are posed,

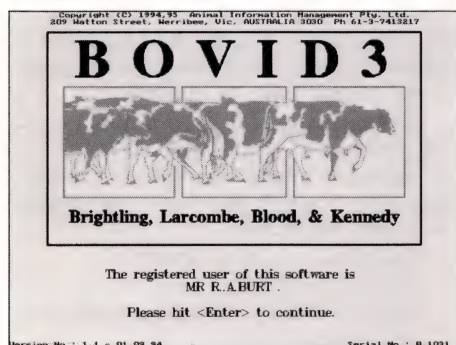


Figure 1. BOVID 3.



Figure 2. CANID.

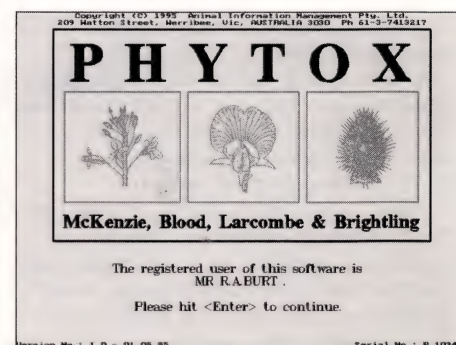


Figure 3. PHYTOX.



to which you answer *Yes*, *No* or *Unknown*. The disease that has prompted the question is highlighted. When you have answered a cluster of questions, the possible diagnoses are reviewed and a new list is generated.

Then follows a listing of the clinical questions that were *Unknown*, together with the clinical pathology tests and necropsy lesions appropriate for the differential diagnoses. If and when such tests are completed, you can edit the tags for the signs. You then need to run *Interrogation* again to update the list of differentials. An information box is available for each disease on the differential list.

You can display on-screen or print out the signs recorded for each disease and their likelihood of occurrence (probability score). Finally, you can print out the case details, which includes the case description, the signs tagged for the case, the list of most likely diagnoses (hopefully short) and paraclinical tests and clinical pathology.

For the program to be used most effectively, it is important to select the *Critical* symptom very carefully. If you select a rather generic symptom, such as weight loss, the list of possible diseases is likely to be lengthy, whereas a more unusual symptom, such as a lame gait, will generate a much shorter listing.

## CANID

This program provides assistance for the case management of dogs. The style is very similar to that of BOVID 3, except that the *Interrogation* command is replaced by the *Manager* command, although the functions are very similar. The starting point for arriving at a diagnosis is likewise the tagging of up to seven of the most important signs, of which one is selected as *Critical*.

For each disease, CANID shows the recommended therapies and the appropriate drugs, dose rates and management.

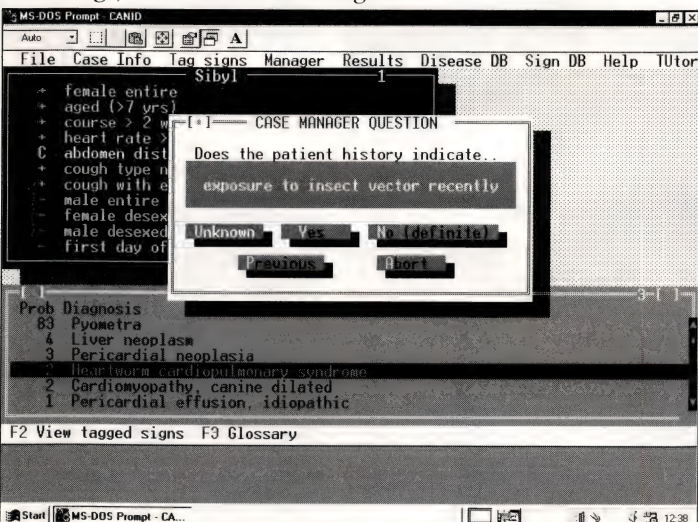


Figure 5. Answering case questions in CANID.

You can check clinical findings, with a score estimate of how frequently each sign is seen. Each ailment has a risk factor, references to the major texts and an estimate of its occurrence frequency.

## PHYTOX

This program provides the clinical signs, necropsy lesions and toxins of plants, fungi and cyanobacteria poisonous to animals and birds. It can be used in several ways:

- If you enter the signs and lesions for a case and ask for the differential diagnoses, a list of plants, fungi and microbes that could cause the problem is generated.
- You can view or print the plant family or agent group, geographic distribution, animals affected, signs, lesions and toxins of any poisonous plant, fungus or microbe.
- You can list all the plants, fungi and microbes that contain a particular toxin or toxin group.
- You can view or print all the plants, fungi and microbes that are toxic, in their family/agent groupings

(cyanobacteria, cycads, macrofungi, ferns, conifers and dicots).

Plants are identified by both botanical and common names.

## General comments

The logic of each program is easy to follow and there is plenty of assistance to be gleaned from the Help systems. Well illustrated documentation is provided for each of the programs, including some sample "investigations" for BOVID 3 and CANID.

Each program is updated annually and each user receives a quarterly User Group newsletter with tips about how the program is being used by others in practice and education.

## Credits

Review copies were supplied by Animal Information Management Pty Ltd 209 Watton Street Werribee Victoria 3030 Ph: (03) 9741 3217 Fax: (03) 9742 2011 BOVID 3 RRP \$490; CANID RRP \$650; PHYTOX RRP \$300

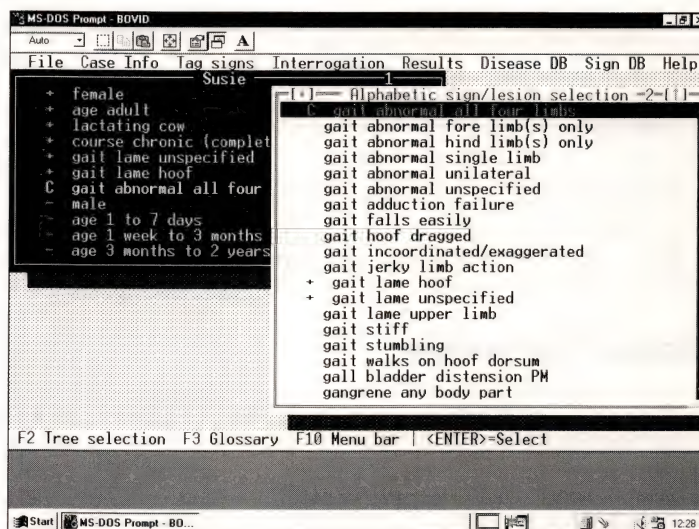


Figure 4. Tagging signs in BOVID 3.

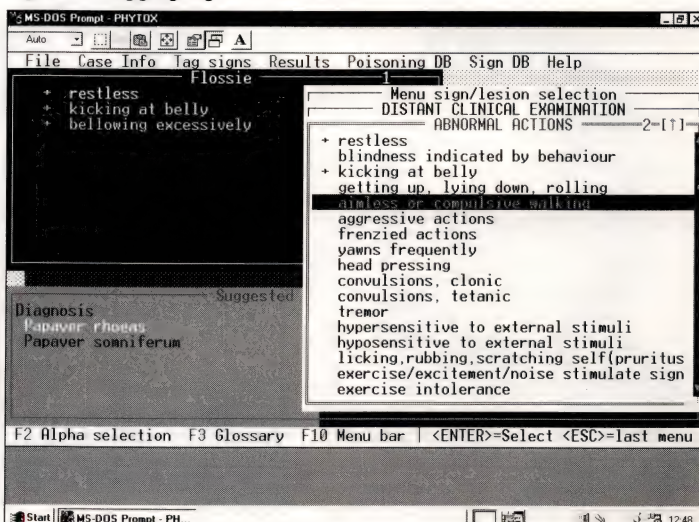


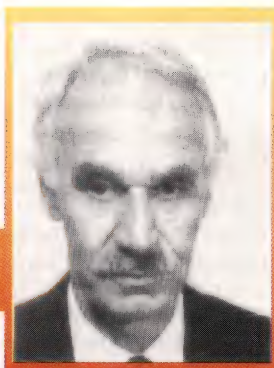
Figure 6. Arriving at a diagnosis in PHYTOX.



# Serious CDs from Walnut Creek

## CD-ROM REVIEWS

Major Keary



**T**his well known distributor has some interesting CDs on which collections of software, documentation, and other material is brought together for quite modest cost.

### East Asian Text Processing

If you want a word processor for Japanese, Chinese, Vietnamese, or Korean a CD, *East Asian Text Processing*, contains a comprehensive collection—some 35,250 files—of documentation and executables for Windows, DOS, and UNIX. There are printing utilities and, of special interest, viewing programs for reading Japanese and Chinese newsgroups. All the executables are shareware, but in most cases the registration fee is modest. Most fully commercial products in this field are very expensive; the CD represents good value for those who don't need (or can't afford) high-end packages.

### Japanese Text Processing

A new release, *Japanese Text Processing*, contains files for Windows, DOS, and UNIX, including Japanese versions of TeX for DOS and UNIX. There are dictionaries, a Japanese text reader, learning aids, and a considerable body of documentation

that includes Ken Lunde's online companion to *Understanding Japanese Information Processing* (an O'Reilly title, ISBN 1 56592 043 0, which is an essential reference for anyone with a serious interest in handling Japanese text on computers). There are recipes, historical texts, and images (old prints and modern photographs).

It is unlikely that any one user would want to install **all** of the executables, or even read all of the text files. However, even if one were to use but one text processing program and the learning tools, this is without doubt the cheapest option. Teachers and students of Japanese should consider it as a resource; anyone involved in handling Japanese text will find the Lunde files invaluable; and it should be of some interest to students of Japanese history and art. There is no other comparable collection of such a wide range of material.

### Netlib

Another new release, *Netlib* is for those who use maths software for scientific and other professional purposes. There are few executables, and most of those are to do with installing the browser; it is the VIEW program common to most of the Walnut Creek CDs and is quite powerful. In this case its capacity to search for strings makes the task of finding any particular routine or function quite easy. The directory structure is well organised and those familiar with scientific mathematical methods will be in familiar territory.

The CD can be used under DOS and UNIX and there is a directory full of utilities including TAR and ZIP. However, all the files are in uncompressed format, deliberately done in order to make possible global searching beyond file names. Some might confuse; for example, *UNPACK* sounds like a decompression utility, and *ODEPACK*



Figure 1. Professor Jim Breen of Monash University is an important contributor to both the *East Asian Text Processing* and *Japanese Text*



Figure 2. An image from photographs on *Japanese Text Processing* CD.



Figure 3. Another file from the *Japanese Text Processing* CD



might even be the kind of software a latter day Shakespeare might use.

These are the kind of things to be found:

- SLATEC (general purpose routines)
- BLAS (low level vector and matrix routines)
- UUNPACK, EISPACK, and LAPACK (linear algebra and Eigenvalue routine packages)
- ELEFUNT (elementary functions)
- FFTPACK (fast fourier transforms)
- FITPACK (curve fitting)
- MINIPACK (maxima and minima functions)
- ODEPACK (solutions of ordinary equations)
- QUADPACK (quadratur)
- RANDOM (well, that's easy: random number generation)

Strictly for specialists, *Netlib* should provide a particularly convenient library of routines.

## TeX

Throughout the CDs mentioned one will find files with TEX extensions. They are ASCII format input files for TeX and LaTeX and can be run through TeX/LaTeX on any platform to create a printable or viewable document.

LaTeX is a macro package used with TeX for document formatting. They present a formidable system capable of producing complex mathematical and scientific work. TeX has even been turned to producing Japanese, Chinese, Arabic, and Hebrew (it has always had the capacity to handle European language, Greek, and Cyrillic).

TeX and all its associated programs are stored in CTAN, Comprehensive TeX Archive Network, sites on the Internet. CTAN holds megabytes of files. Walnut Creek has downloaded just about everything from CTAN onto **two** CDs

(sold for the price of one) and organised in a way that makes finding things reasonably easy. Given the number of files and the wide range of applications, *reasonably easy* is really saying something. This CD set can save hours of online time searching and downloading.

Serious TeX users should consider Norman Walsh: *Making TeX Work* (ISBN 1 56592 051 1, published by O'Reilly) as a companion to the CDs. The book describes what-does-what and where-it-is in CTAN with details of which files are needed for particular installations and uses.

The CDs have a large number of document files describing TeX, LaTeX, and the many other macro packages. It is a remarkable resource and illustrates just how CD technology has transformed the availability of information.

## Project Gutenberg

The latest edition (January 1996) contains a library of 350 electronic texts as well as some images (mostly GIF files of original *Alice in Wonderland* illustrations) and video clips of the Apollo 11 lunar landing (not very edifying). Project Gutenberg is "designed to make public domain texts available electronically for the mere cost of duplication" (Raben & Ehrlich in *Encyclopedia of Computer Science* ISBN 0 442 27679 6); the emphasis is on British and American literature (although Banjo Patterson's *The Man From Snowy River* has made it), American historical documents (constitution, Bill of Rights, Lincoln, Clinton, and Kennedy), some reference material (*CIA World Factbook* and *Roget's Thesaurus*), and a couple of interesting mathematical values (square root of 2 to two million places, pi, and log e).

Rather than Apollo's lunar landing I would have liked images of some of the original historical documents. However,

the texts—all in plain ASCII—make a valuable resource for anyone who has to include excerpts into other work or who has a need to search for particular passages or words.

Gutenberg is not the only such database, but is the most easily accessible. *Thesaurus Linguae Graecae* covers Greek writing from its earliest *publications* to 600 A.D.; the Packard Humanities Foundation (Los Altos, California) has undertaken a similar project for Latin, the Dante Foundation is working on Dante, and the Perseus Project (Harvard) is working on a database for classical Greek culture. There is a BITNET conference that discusses such databases and projects.

## Win95 ready

A problem sometimes encountered by Windows 95 users is that CDs configured for Windows 3.1 won't run. Walnut Creek has ensured this does not happen with anything published since Win95's release. Gutenberg, Japanese Text Processing, and Netlib are all Win95-ready.

## BBS ready

Two of the CDs reviewed are BBS-ready, Gutenberg and East Asian Text Processing. They each have a directory containing the necessary files for use on common BBS systems.

## Price

Laserbaud sells these Walnut Creek CDs at \$39.00 each (the TeX two-CD set also sells for \$39.00); the price in America is US\$39.00, so there's no saving in buying direct.

Laserbaud is at:

49 Ramsden Street  
Clifton Hill VIC 3068  
Ph (03) 9482 3814  
Fax(03) 9482 3876

Internet: [www.laserbaud.com.au](http://www.laserbaud.com.au)



Figure 4. From Project Gutenberg; one of the original *Alice* illustrations, by Tenniel.



Figure 5. Part of a famous screen painting, one of the images on Japanese Text Processing CD.

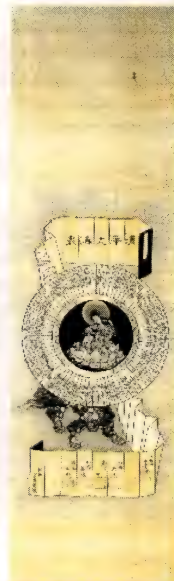


Figure 6. Another of the images from the Japanese Text Processing CD.



# Random access

## YOUR QUESTIONS ANSWERED

John Swale



### Answers Received

- A** From: Leighton West. With regard to the question of using Win95 to connect to the Internet. Microsoft advise a bug if Win 3.xx was previously installed. From Control Panel/Network remove the TCP/IP driver, then re-install from your Win95 disks. Explorer will now connect.
- A** From: Noam Shifrin Regarding the question of scanning an image and sending it to a fax machine, it may come out as the same size image but the resolution will be far poorer because of the scanning engine a fax machine uses.
- A** From: Noam Shifrin In regards to the second question of changing the location of software under Windows 3.1 and the new path not being recognised. If the person is talking about the fact that the icon representing the program in Program Manager does not load the program after being double-clicked then may I suggest that the person change the path under the Properties dialog of the relevant icon.

### Questions and Answers

- Q** I run a network and a BBS under Windows 95 which always asks me for a password. I want to run the system to allow automatic reloading. How can I get around the Windows 95 password on a network?
- A** If you are not using user profiles you can set a blank password and it should not ask for the password after that. It depends on the primary logon security provider is. There is a configuration in the network control panel where it asks for your primary network provider. Choose the Windows System and this should let you do it automatically.
- Q** 1: I have recently converted to Windows 95 and have downloaded the Internet connection instructions from the BBS. I get to the Melb PC home page and start browsing but after 15-20 seconds it tells me have I lost the connection. The modem is still connected and Netscape is still running but will not connect to any service. It is the full version of Netscape not the beta and I have tried reloading the Internet software several times.
- Q** 2: This also happens with Windows 3.1 and seems to be a common problem. It only occurs with Melb PC and not with commercial service providers when using exactly the same hardware and software.
- A** 1. It can be a problem with non-dedicated phone lines.
- A** 2: We have just loaded some SNMP software to track accesses. If this problem happens take a note of the IP address and the message and e-mail the details to the melbpc.modem newsgroup or to the BBS. There were some problems with early V34 modems when using V42 compression. You need to ensure that you are running a current release. The Melb PC modems are all running later versions.
- Q** I have a HP 4L printer running on a DX/66. This will print files from DOS without any problems. However when printing from Windows it produces rubbish. I have checked all the printer connections and settings and they seem fine. I was wondering if it could be a faulty I/O card.
- A** Would not be the I/O card as DOS and Windows use the same card. Ensure you are running the latest printer driver. Also try another printer cable as this was found to be the problem in a similar case.

- Q** I dial into the Melb PC BBS using a terminal emulation program. I get the message that ANSI is not being sensed even though I have ANSI loaded and I see the ANSI characters displayed correctly.
- A** The BBS software will recognise most ANSI terminal emulators but not all. Try using a standard one.
- Q** How can I import ASCII text into Word for Windows and retain the formatting?
- A** Select Courier or some other fixed pitch font.
- Q** Where is the calendar that was in Windows 3.1 but is not in Windows for Workgroups?
- A** You can copy the CALENDAR.EXE from the old Windows.

### Unanswered Questions

- Q** I purchased Pyware Music Writer v1.0 Level 2 from Enerqi International P/L. They no longer handle Pyware and cannot help me obtain an installable copy. My registered copy became uninstalleable when I tried to copy it to my upgraded hard disk without first deinstalling it. Although the program is outdated I would still like to be able to use it. Can anyone help?
- Q** From: Ian McDowell. On an XT computer, CHKDSK and every similar or dependent program stalls, claiming "File allocation table bad." MSD diagnostics say that the computer thinks that it has 65535 KB of extended memory. How can I fix this using DEBUG (not with any of the advanced utilities), please? □

### Over to You

Please contact me if you have any comments on the answers given; can provide a reply for the unanswered questions; or if you cannot attend the monthly meeting and would like a question asked and included in this column.

To contact me: write to me care of the office; leave a message on the BBS or telephone me on  
**(03) 9270 6115 BH**  
**(03) 9857 5567 AH.**

Note:  
Please contact commercial distributors before asking a question here. In all cases mention version numbers.



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**Monthly meeting**  
**All members and guests welcome**

**Pharmacy College**  
**381 Royal Parade**  
**Parkville**

**6.00 pm**  
**First Wednesday**  
**each month except January**

An average of over 500 members and guests attend our monthly meetings, which provide an excellent forum to introduce and release new products to those who are both users and decision makers. Meetings are arranged around planned themes. Members or presenters who are able to assist or contribute are invited to contact the convener.

Stan Johnstone	Meetings convener and administrator
Phone: BH & AH:	(03) 9578 3091
e-mail	stanj@melbpc.org.au

### Meeting details

Date	Presenters	Topic
6 April		Education Theme
	(speakers not finalised at time of printing)	

### Plus:

The usual giveaways	<b>Don't forget the Waffle SIG after the meeting</b>
Random Access	
Shareware Library Sales	
Socialising	

## Acknowledgments

Melbourne PC User Group gratefully acknowledges the support provided by the following organisations:

**American Power Conversion** for the supply of six uninterruptible power supplies for the Group's Communications Centre.

**ACA Psacific** for the donation of a Diamond Stealth Video card for **PC Update** production.

**Artisoft Australia Pty Ltd** for the supply of software, equipment and services for the Group's Communication Centre.

**Computer Rebuilds** for the supply of equipment for **PC Update** production and the group's BBS.

**Corel Corporation** for copies of CorelDRAW! and Corel Ventura Publisher used in the production of **PC Update**.

**Dell Computer Pty Ltd** for a Dell PowerLine 466SE PC to support the Internet service.

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**Hewlett-Packard** for Vectra PCs, used for training, a printer for administration and a Vectra PC and ScanJet scanner used in the production of **PC Update**.

**Micrografx Australia Pty Ltd** for copies of Picture Publisher used in the production of **PC Update**.

**SEALCORP Computer Products Ltd** for the supply of equipment for the group's BBS.

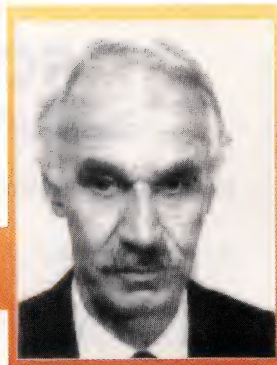
**SONY Australia Pty Ltd** for the supply of equipment for **PC Update** production. □



# Serious CD: French, calculus, natural history, and research

## MULTIMEDIA AND TEACHING

Major Keary



**M**any people associate multimedia with entertainment and games. It has another face, a remarkably flexible method of teaching. Unfortunately, many publishers seem to regard inclusion of video clips is mandatory if they are to use the term, *multimedia*.

There are hardware-operating system combinations, still quite expensive, capable of displaying high resolution video scaled to an acceptable size. Even so, the clips are often brief to the point of doing no more than satisfying some vendor-perceived criteria that video is an essential element of multimedia. In many cases animation would do a far better job.

### Language learning

Multimedia is a natural for language teaching, either in the formal classroom situation or for self-teaching. An example is Rosetta Stone (remember the Rosetta Stone—it was the key to decoding Egyptian hieroglyphics) which can be used as a supplement to formal teaching, or can be an effective self-teaching program.

An essential element of language learning is familiarity with patterns. Pattern drilling is an effective way of learning word order (does the adjective come before or after the noun, is it inflected, where do the verbs fit, etc.)

without having to know too much about the technicalities of grammar. It also reinforces vocabulary and makes recall of, for example, correct verb forms automatic. The Rosetta Stone package does that in several interactive modes.

A number of options use images, text, and audio to enable a user to respond to text, pictures, and voice. The CDs can be used on either Mac or PCs (Windows required). It is no toy and the price, \$450 for one language, will attract only those serious about learning.

Versions are available for Spanish, English, German, French, and Russian. Designed for self-paced learning, it is also suitable for use by language teachers and anyone who wants supplemental study material.

Planning a trip overseas? A good way to become familiar with the language. Want to encourage your children to learn another language? Even though expensive, the price is no more than three or four high-end games.

Lessons are well structured and offer a variety of approaches that can be selected at will. Users are able to listen to native speakers, record their own responses for playback, and read and write in the alphabet of the language. Good value.

A demonstration CD with each of

Spanish, English, German, French, and Russian lessons is available for \$15.00. It is fully functional, but cuts out at a fairly low lesson level. An excellent working sample in several languages, it differs from most "demo" programs in that it does not simply lead the user through a preprogrammed routine or "tour." In this case the lessons are fully usable.

The Australian distributor is:

Validata  
43 Beaufort Rd  
Terrigal NSW 2260  
Ph. (043) 85 2091 Fax (043) 84 2323

### Learning calculus

*Interactive Calculus* is an interesting approach to learning something generally regarded as a complex. Calculus is a natural for interactive multimedia as it enables one to solve problems on-screen. The package is designed to be used with any one of several high-end math programs (such as *MathCad*). While not necessary, if the program is to be used in interactive mode that kind of software is necessary.

The video clips do nothing for the educational value of the package, but I suppose they add variety and interest. What appears to be the multimedia version of a *typo* is the *greek*ing of a group of screens that are supposed to

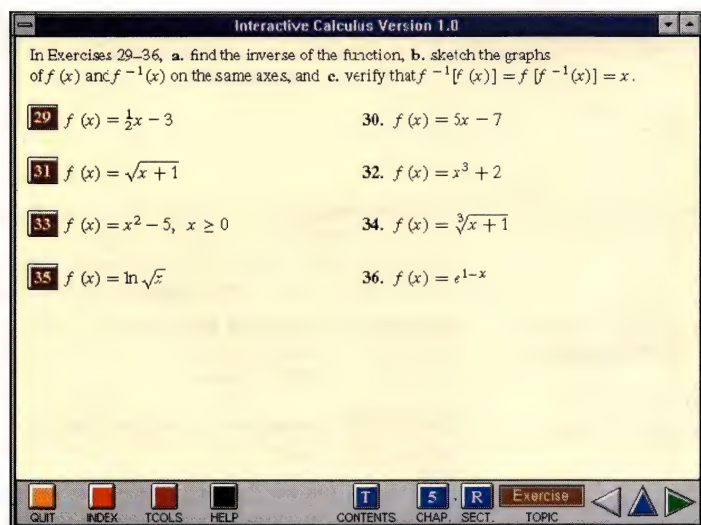


Figure 1. Examples of problems in *Interactive Calculus*. The ones with buttons (left side) have answers that can be viewed.

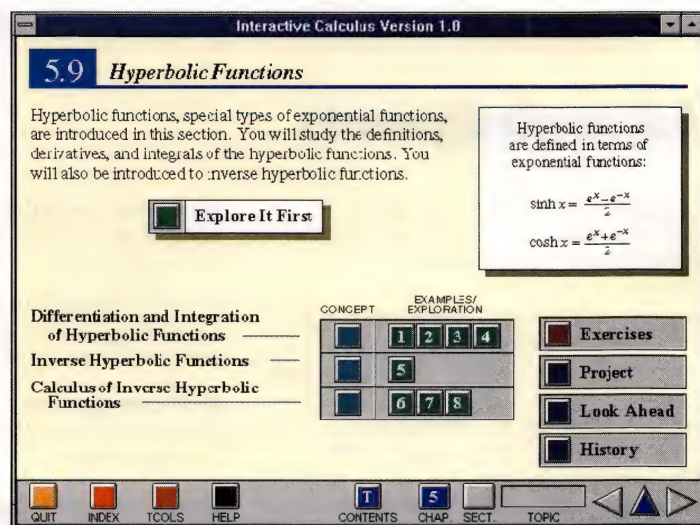


Figure 2. A topic with hypertext links.



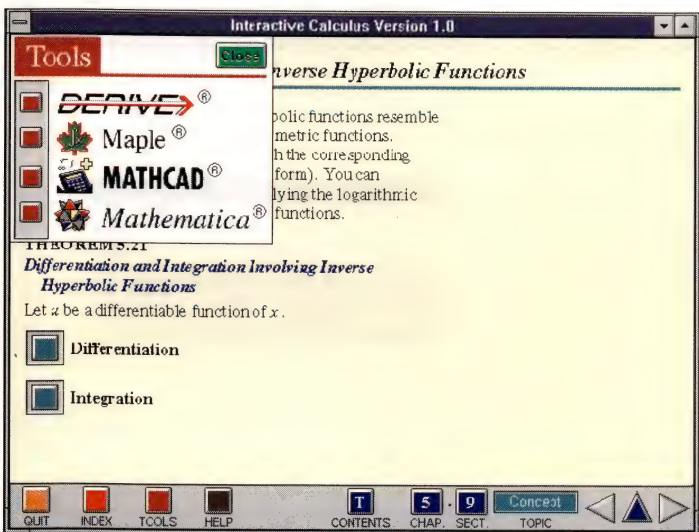


Figure 3. Interactive Calculus can work with any of these packages.



Figure 4. Opening screen for a 500 Nations topic.

display the pages of a manual recommended by the authors. I am sure the text was supposed to be readable, but even at high resolution it was still greeked. A minor matter, the information being in no way vital, but it should not have slipped through.

*Interactive Calculus* is based on a standard American text, *Calculus*, by Larson, Hostetler, and Edwards. Why multimedia and not a traditional book? The electronic format enables users to take advantage of hypertext links and use the program in a non-linear way.

At \$54.95 it is exceptional value, particularly as two further "volumes" (CDs) are available free on registration. A valuable resource for supplemental teaching or self-teaching.

It is difficult to know how to measure the relative effectiveness of *real* text books and multimedia. Students will, no doubt, become more accustomed to using multimedia; those who have had to rely on books for education, as a source of information, and for recreation

are likely to find multimedia better as a supplement rather than a prime tool for learning.

By way of comparison I looked at a modern book on the subject, James Stewart: *Calculus*, and found it exceptionally good. Typographically pleasing, thorough, and presented in a logical order. If I wanted to revive my knowledge of calculus this would be my principal source, with *Interactive Calculus* as a valuable method of reinforcing the learning. That, I think, is the package's real value, and for that it is well worth the money.

The Stewart book (no, Liberty Valance was shot by another James Stewart) for those interested is published by Brooks/Cole (part of Thomson Information Publishing Group), ISBN 0 534 13212 X. I might add that Thomson books, distributed by Thomas Nelson, are exceptionally well presented and remind me of O'Reilly publications. That's not coincidental, there is a link somewhere along the line.

Enquiries about *Interactive Calculus* can be made to:

Customer Service  
Thomas Nelson  
102 Dodds Street  
South Melbourne  
Ph (03) 9685 4111

### Red Indians

The Microsoft CD, 500 Nations, is—at least, in my opinion—big on presentation, ambitious in scope, but superficial. The subject is really too vast for one CD and no serious student of American aborigines is likely to find it of more than passing interest.

The fact that Kevin Costner has given his name to the publication might excite some, but it is hardly an academic endorsement. Good for sparking interest, but if you want to know the real story (as far as researchers have been able to unravel it) of the Maya, then look to real books and an excellent video series about the present state of archaeological research.



Figure 5. The 500 Nations CD is big on pictures, but often sparse on text.



Figure 6. One almost stumbles on this screen that leads to pages about the potlatch.



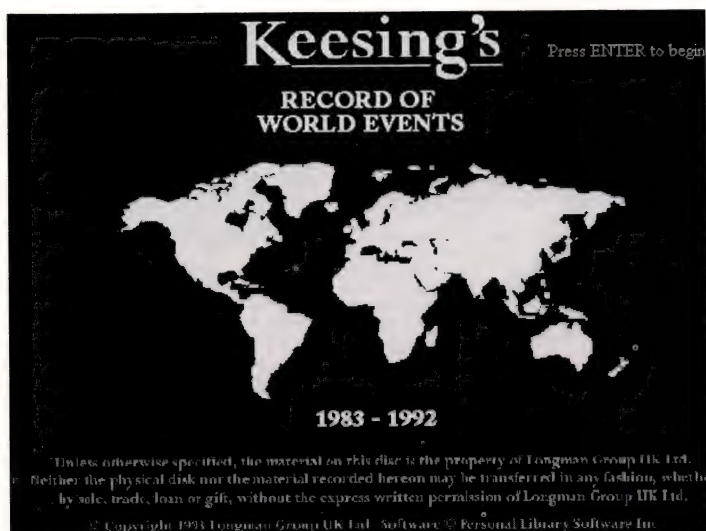


Figure 7. Keesing's opening screen.

I found the index pretty sparse. No mention of Haida, Tlingit, Bella Coola, Coast Salish, Tsimshian, or Chinook—just some I remembered from anthropology—so it is likely there are a lot more. The ones mentioned (Haida ...) are cultures that practised *potlatch*, and that does not appear in the index either. The potlatch is on the CD, but one stumbles upon it by accident. The coverage is mostly pictures with captions. Some of the old photographs are interesting, and there are some quite spectacular illustrations.

However, anyone in search of *real* information about American aborigines would be better advised to use the Encyclopaedia Britannica.

## Research

*Keesing's Record of World Events* is an important example of using CD for research. *Keesing's* started off in the 1930s, published weekly with monthly

and quarterly index updates. If you have never seen Keesing's, drop into the State Library and ask about the hard copy. Want to know who was elected to the Parliament of Nepal or Nauru, or which countries rank as the seven most populous? The one source for all that information is Keesing's. It is now published monthly in hard-copy and ten year spans are accumulated on CD. The publisher, Longman, was among the first to embrace the CD format for such a purpose. The current volume covers 1983–1992.

The presentation is not flash. Just the facts in monochrome. Some of the older issues were designed before CDs and the pages are too wide to fit the screen. It can be a nuisance scrolling sideways, but the offset is one of the best resources to be found. The search engine is effective and the hypertext links work well.

At \$131.00 it is not expensive for libraries. Can you find, at the click of a mouse button, information about Jacques

Chirac and who forms his government? You can on the Keesing's CD. It is a remarkable publication that should be better known.

By the way, we all knew that China and India head the populous country list. After them comes the USA (249.6 million), then the Commonwealth of Independent States (the bulk of the old Soviet Union) followed by Indonesia (184.3 million), Brazil (150.4 million), and Japan (126.6 million). By the year 2000 Brazil's population will be in the order of 190 million. It took me about three minutes to extract those population figures.

Longman also publishes other reference CDs, including *World Energy*, *Microinfo World Research Database*, and *Medical Reference on Research*.

For information contact:

Longman Australia  
95 Coventry Street  
South Melbourne vic 3205  
Ph. (03) 9697 0666,  
Fax (03) 9699 2041

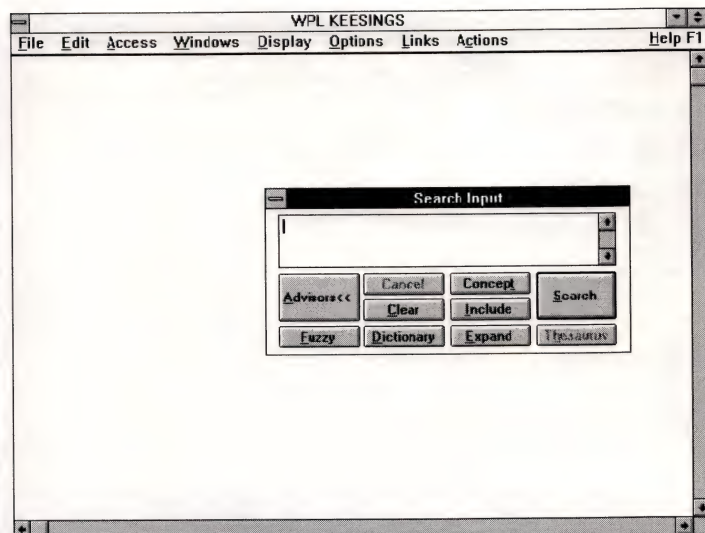


Figure 8. Search input dialog box.

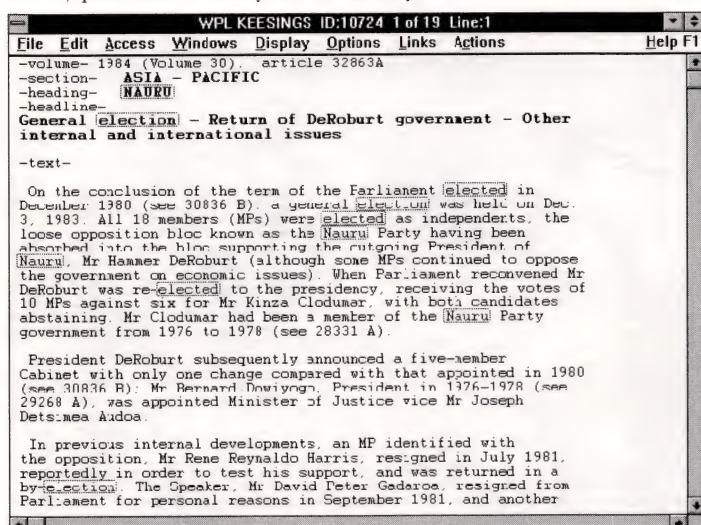


Figure 9. Typical presentation of Keesing's information; the boxed words are those that were entered in the search pattern.

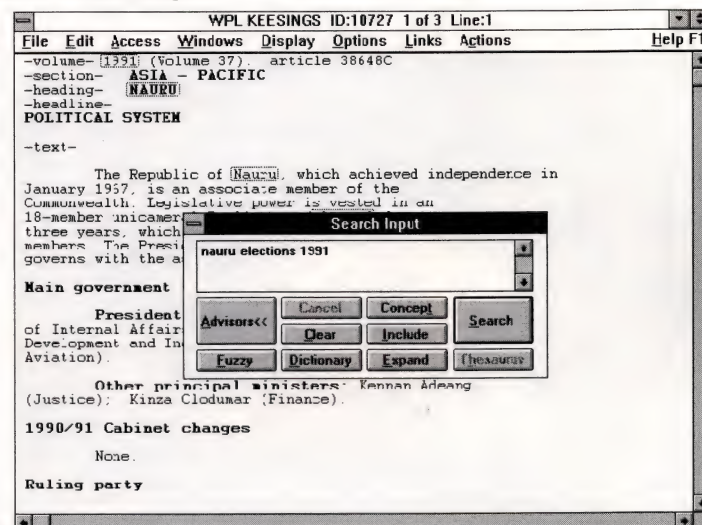


Figure 10. A search pattern with a specific request, the 1991 Nauru elections. The dialog box can be closed or moved; the text continues over several screens.





Figure 11. Fauna Australis opening screen with hypertext links. The quality of the image is not very attractive, but the ones inside are superb.

## Fauna Australis

Now here is something of academic quality; it is also entertaining, and has a clever way of dividing its information. A product designed and conceived well.

The Healesville Sanctuary is world-famous; it has an education service that, in conjunction with Trigon Consultants, has published a multimedia CD, *Fauna Australis*. The price may be regarded as a bit high for ordinary users (\$160.00 plus \$8.00 shipping), but two or three games would cost that much. This has much greater value. The intended market is primary and post-primary schools, but it would be an asset in any library with multimedia facilities.

The space given to video clips might have been better devoted to an even wider range of species covered. That is not to say the video clips are of poor quality, but they run aground on two rocks: the space required for high-

resolution video files is enormous; and even if high-resolution files could be accommodated, the equipment available to users does not usually handle that kind of media well. The problem is compounded by the natural camouflage of many creatures in their natural surrounds. I have had a number of encounters with death adders, one extremely close, and I can assure you that even with the best of equipment (for recording a picture and displaying it) they don't show up all that well.

On the other hand, most of the still pictures are quite spectacular and there are good sound clips of bird calls and other animal noises.

Two things impressed me: the excellent search facility, and the way in which textual information is presented at two levels. For nine year-olds (and the rest of us who may need only brief, simple information) there is an easy-to-

comprehend description of, say, the common wombat. A user can elect to see more detailed information, which is an example of how technical material can be presented in a compact but interesting way without losing its integrity.

The basic search facility is visually pleasing and intuitive to use, but serious search parameters are also available.

Companies that need something unusual and interesting as a gift for overseas clients should put *Fauna Australis* on the list.

It is available from:

Healesville Sanctuary  
PO Box 248  
Healesville VIC 3777  
Ph. (059) 62 3422

or

Trigon Consultants Ltd.  
1/6 Hi-Tech Place  
Rowville VIC 3178  
Ph. (03) 9764 8329

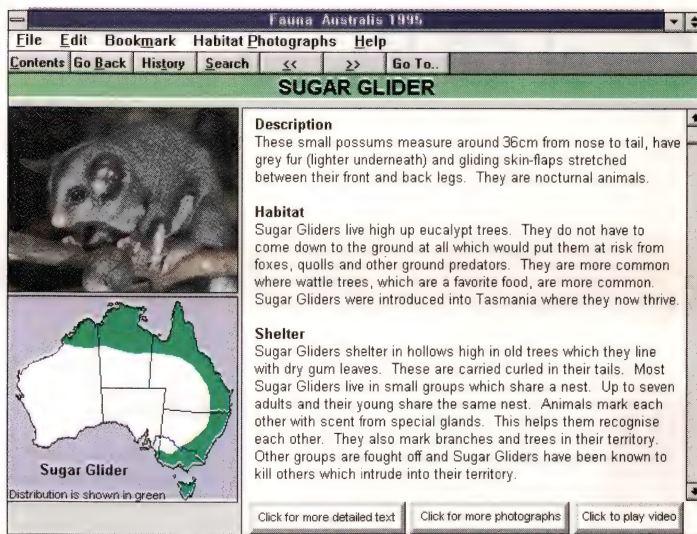


Figure 12. A typical information page.



Figure 9. An example of the excellent illustrations.

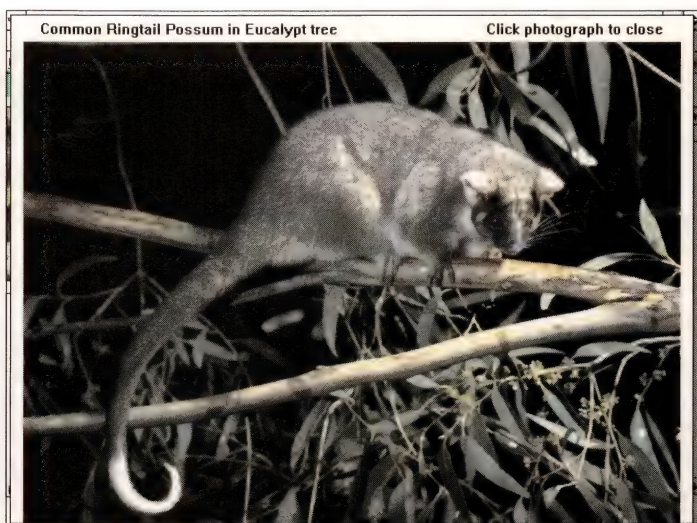


Figure 10. One of the many beautiful images presented as full screen pictures.



## CD-ROM REVIEWS

Bernadette Houghton



**N**ow that multimedia computers have become very much commonplace, there has been a furious rush to produce software full of sound and graphics. Much of this software is of questionable quality, but there are some gems around. From what I have seen so far of the Corel CD Home series, it contains titles of very high quality indeed.

This review looks at three children's educational and entertainment titles in the series.

### Red Rhino

An entrancing interactive storybook, Red Rhino is based upon the children's picture book of the same name. It is part of the Little Giants series, along with the Blue Tortoise which was reviewed in the February issue of *PC Update*.

In this story, Red Rhino has lost his red balloon. Will he find it? The child can help him in his search.

Like the other storybooks in the series, Red Rhino is aimed at three- to six-year-

olds and is an appealing story with simple, colourful graphics. The seven pages can be read in either English or Spanish, non-stop or page by page, allowing the child to look for secret animations. Click on Red Rhino, for example, to see him turn into a policeman or a baseball player, or click on words to hear them pronounced. Each page has an educational theme; clicking on the clouds on page 2 invokes shape animations, clicking on apples in the tree on page 3 reveals

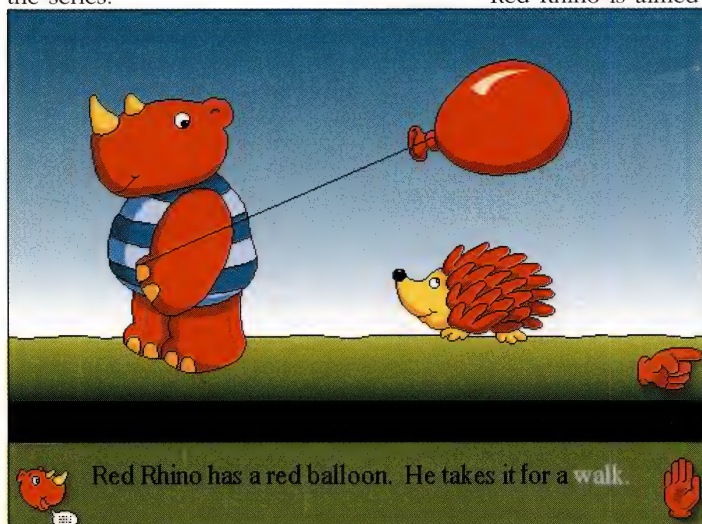


Figure 1. Red Rhino: a storybook page.



Figure 2. Red Rhino colouring book.



Figure 3. Red Rhino colouring book options.



Figure 4. Nikolai's Trains options screen.



different kinds of fruit.

All the pages of the storybook can be coloured with a palette of crayons or paints, and slide shows can be created from each colouring book. Uncoloured pages can be printed to paper, and different colouring books can be saved for each child, although only under pre-determined names.

My three-year-old has been charmed by the Red Rhino. Nearly every time I ran the storybook for the purpose of this review, there would be a thump, thump, thump in the hallway, and a little being would appear in the doorway—even when that little being was supposed to be long in bed and fast asleep!

Red Rhino runs well on my Windows 95 computer, although exiting abnormally causes minor video problems which remain in one form or another until the next reboot of the machine.

### Nikolai's Trains

Nikolai's Trains is aimed at four- to eight-year-olds and, like Red Rhino, is an

animated storybook. The story is more complex, the animations more sophisticated and the graphics more elaborate.

Nikolai and his toy cat, Neow-Neow, have a train race; the story follows Neow-Neow's adventures as he tries to win. There is a realistic, imaginative atmosphere, with convincing graphics and the sound of trains in the background.

Like Red Rhino, the story can be read automatically or controlled by the child, allowing him time to explore each page and discover the secret animations. Many pages provide educational information, such as explaining the mechanics of steam trains, the workings of coal mines and the hydrologic cycle. There are 12 pages in the storybook, although several pages have multiple screens, and the story can be read either in English or Japanese.

Despite its detailed graphics, colourful animations and convincing atmosphere, Nikolai's Trains is a fairly heavy

storybook, more likely to be appreciated by adults for its educational worth than by kids for its entertainment value. Although Patrick, three, enjoyed the animations, eight-year-old Matt did not find the story at all compelling and thought the graphics rather boring; he did not bother to see the story through to its end.

Nikolai's Trains requires no hard disk space, running entirely off the CD-ROM. Although the minimum hardware specifications are for a double-speed CD-ROM drive, the faster your drive, the better. Even on my hex-speed CD-ROM, performance was a little sluggish. It ran with no problems on my Windows 95 system.

### Wild Board Games

Wild Board Games is a zany, interactive CD. Play checkers with Morton the monkey, snakes and ladders with Edna the chicken lady, chess with the irrepressible Jack or reversi with Benny the dog. You can play in the kitchen,

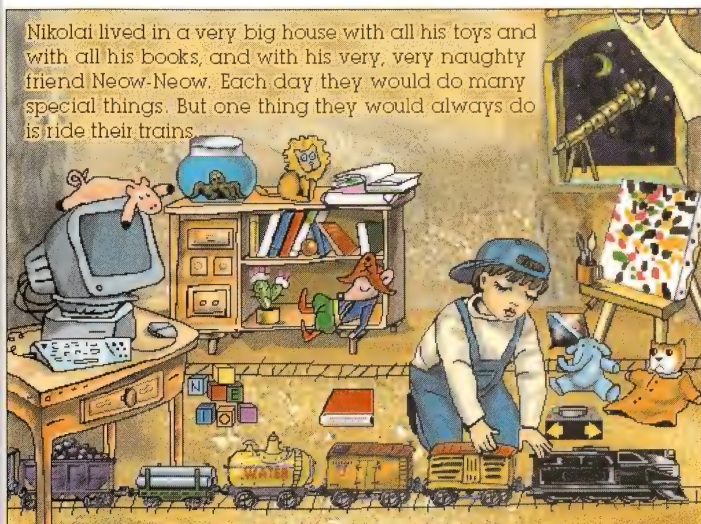


Figure 5. Nikolai's Trains: a storybook page.

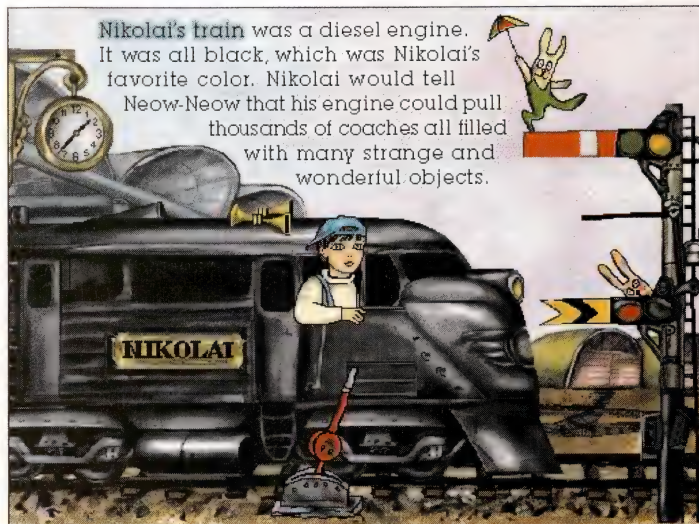


Figure 6. Nikolai's Trains: a storybook page.

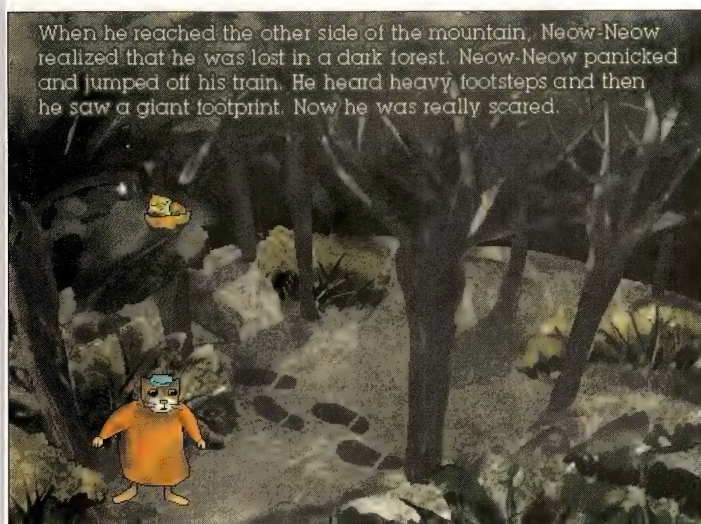


Figure 7. Nikolai's Trains: a storybook page.



Figure 8. Wild Board Games: the game selection screen.



the attic, the backyard or the basement. No need to worry about coaxing someone to play with you; Morton, Edna, Jack and Benny are always willing to play. But if you are too slow to take your turn or you make a wrong move, be prepared for lots of insults, fidgets and funny faces. When you get tired of the company of your host you can play the switch game all by yourself or look for hidden animations or mini-activities. If you are in the kitchen, try decorating a cake; if you are skulking away in the basement, try painting a picture—as a bonus, the picture will decorate the basement wall until you change it or paint another. Dress up a dummy, play space invaders or tic tac toe; the things you can do are virtually endless.

Wild Board Games is aimed at four to ten-year-olds. My nephews Brad, ten, and Matt, eight, love it and fight over whose turn it is to play. But it is sure to appeal to a much wider age group. The switch puzzle has been mastered by my three-year-old, and he clicks merrily

away on the animations. My husband has been spending a fair bit of time playing chess with Jack, and gets very infuriated when Jack accuses him of cheating. And I confess to spending rather more time than I ought dallying with Morton.

Boards can be played in either 2D or 3D. There is online video help, and various levels of difficulty can be chosen. You can even get hints and—horror of horrors!—cheat with some games!

On the downside, there is no provision for more than one player at a time. You can play against your host but no-one else. The online video help really stretched my 1 MB video card beyond its limits, turning my desktop permanently white and causing other screen misbehaviour; but switching off video help resolved those problems.

Wild Board Games is great fun and an amusing way to learn some classic board games.

## Minimum system requirements

All CDs come in dual Windows/Macintosh format, and all are likely to push your hardware to its limits.

### • Red Rhino

486 processor, Windows 3.1, MS-DOS 5.0, 8 MB RAM, double-speed CD-ROM drive, SVGA card and monitor, Sound Blaster or 100 percent compatible sound card.

(Macintosh) Macintosh LCIII, System 7.0, 8 MB RAM, double-speed CD-ROM drive, colour monitor (512 x 384).

Approximately 300 KB of hard disk space required for main files (excluding colouring books).

### • Nikolai's Trains

Same as Red Rhino, but with System 7.1 with Sound Manager required for a Macintosh.

### • Wild Board Games

486DX-33, Windows 3.1, MS-DOS 5.0, 8 MB RAM, CD-ROM drive, mouse, monitor and 1 MB SVGA video card, Sound Blaster or 100 percent compatible audio card

14 MB hard disk space required on installation drive, plus 3 MB for installation of Video for Windows and Microsoft WinG files.

(Macintosh) Macintosh LC III, System 7.1, 8 MB RAM, CD-ROM drive, mouse, colour or greyscale monitor that can handle 640 x 480 or better.

## Availability

The Corel CD Home series is available from Harvey Norman, Dick Smith and Brashs.



Figure 9. Wild Board Games: checkers in the basement.



Figure 10. Wild Board Games: snakes and ladders in the attic.



Figure 11. Wild Board Games: reversi in the kitchen



# Corel: The Interactive Alphabet

## EDUCATIONAL SOFTWARE

Bernadette Houghton



**T**he *Interactive Alphabet* is an animated CD-ROM full of fun and high spirits with a decidedly educational purpose—to teach pre-schoolers the alphabet and expand their vocabulary. There are 26 pages full of eccentric characters, preposterous stories and absurd animations. Just the kind of things that appeal to young children.

Each page features different characters and an amusing story made up mainly of words beginning with the profiled letter of the alphabet (Figure 1). For the letter N, Ned the nimble noodle puts on his nightshirt, nightcap and nose-warmer and nestles into his nice new bed with a newspaper and a nutritious cup of nutmeg nectar—which is going to cause him noodle nightmares. There is also Deborah the dachshund, Gilda the ghostly ghost, Harry the hog and oodles of others.

After each story is read, the child can click on words to hear them pronounced; some words are highlighted, and clicking on these also provides a definition of the word (Figure 2). For example, Ned's nutmeg nectar is nutritious because it is good for him. On the bottom right of the screen is a supplementary word list; on the N page there is nail, naked, narwhal, needle and

net among others. Clicking these words invokes lively animations to visually describe the word (Figure 3).

The *Interactive Alphabet* can be read non-stop or controlled by the child. It is more flexible than most animated storybooks since the child can move between pages at random at any time.

The *Interactive Alphabet* is a fun way for children to learn the alphabet and extend their vocabulary at the same time. The stories are zany and outrageous, the characters delightfully eccentric and the animations amusing. Children will have fun without realising they are supposed to be learning.

### Minimum system requirements

The *Interactive Alphabet* comes on a dual Windows/Macintosh format CD-ROM. No hard disk space is required, as it runs entirely off the CD-ROM.

Required: IBM compatible 486/33 PC, Windows 3.1, MS-DOS 5.0, 8 MB RAM, double-speed CD-ROM drive, SVGA video card and monitor (640 x 480, 256 colours), Sound Blaster or 100 percent compatible sound card, mouse.

### Availability

The Corel CD-ROM Home series is available from Harvey Norman, Dick Smith and Brashs.



Figure 1. The zany characters and story of the C page.

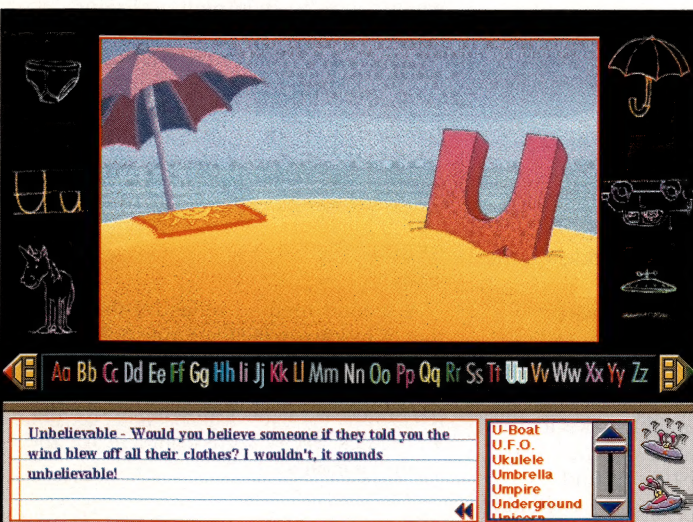


Figure 2. Click a highlighted word in the story and its definition is displayed.



Figure 3. Click "hamburger" and along comes an animated one.



# Winning with Windows—Part 9

Fritz Lang

**T**his regular column is usually devoted to explaining a number of basic Windows topics in simple terms. This ninth and last part is different: it is aimed at PC administrators.

## DOS Task Environment Problems

With Windows for Workgroups, the Windows platform is making its first steps into the world of LANS (Local Area Networks). The majority of LANS still run under DOS. The relationship between Windows and DOS-based LANS is not always a happy one.

Several LANS rely heavily on the DOS Environment space. This is an area of RAM that is set aside by DOS to store variables such as the DOS path, the prompt, or a reference to the DOS command processor. Network operating systems often store many additional settings in the DOS Environment, such as the name of a network user, the address of his default printer, or his server home directory.

Many a LAN administrator has been frustrated by his inability to provide reliably for sufficient DOS Environment space when running DOS processes under Windows. *Out of Environment Space* is the error message we have come to hate. A common though crude solution consists of reserving space by declaring a "dummy" variable in AUTOEXEC.BAT, and releasing it when some space is required.

There is a much better way. Assume your machine requires 512 bytes of environmental space. Enforce these three settings:

1. In CONFIG.SYS, include the well-known line

```
SHELL=C:\DOS\COMMAND.COM /P /E:512
```

If you still run under DOS 3.1, you would need to make the last switch /E:32. You should also consider upgrading to a later version of DOS.

2. In SYSTEM.INI, locate the group with the header [NonWindowsApp] and insert this line immediately below it:

```
CommandEnvSize=512
```

3. Make sure to activate your DOS task through a Program Information File, e.g. through DOSPrmpt.PIF. In the box *Optional Parameters*, enter /E:512

While modifying DOSPrmpt.PIF with the PIF Editor, you might as well force all

DOS tasks to start in the root directory of drive C: rather than in the Windows directory. An entry of

```
C:\
```

in the *Start-up Directory* will do the trick. If you still get *out of Environment Space* messages, you need to increase the number 512 to perhaps 700 or 1000.

## Turnkey Applications

Most users quite like the look and feel of Windows, and get quickly used to the idea of double-clicking icons do activate the application it represents.

However, in some cases it may be desirable to restrict a user to just one selected application. This section explains a method that will activate Windows, launch the desired application, and terminate back to DOS without giving the user the opportunity to run any other applications.

The key lies in the SHELL line within the BOOT section of SYSTEM.INI. It is normally set to PROGRAM.EXE. If, for example, you replace PROGRAM.EXE with D:\WINWORD\WINWORD.EXE, then Word for Windows will be the only game in town.

I shall explain two methods to manage the Windows environment where this type of operation is desired.

The first method relies on having two standby and one operating SYSTEM.INI files. The standby file that contains PROGRAM.EXE is called SYSTEM.ORG, the one that contains WINWORD.EXE is called SYSTEM.WRD.

You need to create each of these standby files manually, using a suitable text editor such as EDIT from DOS 5 or 6.

To activate a normal Windows session, the boot script would contain the DOS command

```
COPY C:\WINDOWS\SYSTEM.ORG  
C:\WINDOWS\SYSTEM.INI
```

To activate just Word for Windows, the script would read

```
COPY C:\WINDOWS\SYSTEM.WRD  
C:\WINDOWS\SYSTEM.INI
```

The method is simple. However, it has one major flaw: It will not remember any changes that you might make to SYSTEM.INI. They are lost as soon as you activate Windows next time round.

The second method relies on a simple editor, WINHELPER.EXE. This editor changes the BOOT line of SYSTEM.INI on the fly but leaves all other lines intact. Any changes

to SYSTEM.INI that you save remain saved.

WINHELPER.EXE is included with the WINSAVE utility. It can be downloaded from the Group's bulletin board, or it can be ordered on Shareware disk Melb 2375. Note that early versions of WINSAVE did not include WINHELPER.EXE.

## Making DOS Windows-Aware

Not all DOS applications run happily under Windows. Some just won't work properly while others might crash the machine. Some versions of the popular LandMark SPEED program belong to this group. The VT terminal emulator ZSTEM240.EXE is another example; it runs well enough but is likely to lock up a machine when a user tries his luck at task switching.

To prevent users from running such ill-behaved applications while Windows is active, a tool is needed to indicate if a PC is in a genuine DOS environment, or in a DOS task under Windows. The following simple trick will do it.

In AUTOEXEC.BAT set the following variables in this order:

```
PROMPT $p$g  
SET WINPMT=Windows $p$g  
SET DOSPMT=%prompt%
```

(Note that PROMPT and WINPMT are keywords). While your PC runs in a native DOS process, the three variables will keep their originally assigned values. However, when in a DOS task under Windows, the values of PROMPT and WINPMT will be swapped, and your prompt will tell you that you run under Windows. This batch file code fragment could be used to detect the Windows environment automatically:

```
IF %DOSPMT%.==%PROMPT%. GOTO OK  
ECHO Cannot run under Windows!  
GOTO EXIT  
:OK  
SPEED  
:EXIT
```

A second method relies on the fact that Windows will place the pointer "windir=" into the environment space of a DOS task. The utility FINDWIN.COM, generated with the following script file, will check the DOS environment for the string "windir=":

```
FINDWIN.SCR  
a 100  
CLD  
MOVES, [2C]
```



# Computing in the Mare's Nest

Tom Coleman

In the current atmosphere of newer, bigger, better and faster I have decided to upgrade my image. You see, there are people out there who believe that I am stuck in a time warp. They think that I prefer to use an XT and that I hate Windows. I will admit that I believe that an XT is far more useful than most people think and that Windows is not.

That said, I think the time has come to discuss what kind of computer I use. Now I will be the first to admit that there are other ways to set up and other things that you can do with a computer and that they are quite reasonable and rational. However they are not my uses.

...continued from previous page

```
XORAX,AX
XORDI,DI
ES:CMWORD [DI],0
JZ 11B
MOVSI,11F
MOVCX,7
REPZ CMPSB
JNZ109
MOVAL,1
MOVAH,4C
INT21
(blank line)
E 11F 'windir='
RCX
26
n FindWin.COM
w
q
```

Type all of the above lines into FINDWIN.SCR, starting with "a 100". Include the blank line (but do **not** type "(blank line)"), and make sure that "windir" is spelt in lower case letters. Save the file and enter the DOS command

```
DEBUG < FINDWIN.SCR
```

to create FINDWIN.COM.

You could use FINDWIN.COM in a batch file like so:

```
FINDWIN
IF ERRORLEVEL 1 GOTO WinActive
SPEED
GOTO EXIT
:WinActive
echo Sorry, you can't run
echo SPEED right now!
:exit
```

This is my opinion. If you have a different one, well—I am willing to let you keep it. I am not looking to convert anyone, just explain myself.

I have a 486 with buckets of RAM and an umpty-ump MB hard disk. It runs Windows very well. I use it to run all sorts of software including Windows when I want to use a Windows program. At present there is only one of them but I suppose there will be more in the future. The rest of the programs that I use run better under DOS, so I use DOS.

Then there's the AT—2 MB of RAM and a 40 MB hard disk. I am looking for some more RAM but am in no hurry.

On an off over the past year or so I have been messing about with LINDA. (No pun intended but Lynda is also the name of my lady. I have already worked out all of the obvious puns.) LINDA is a sort of hybrid program with bits of Operating System and Network tossed in. It requires a network. It uses idle CPU time on the network to run its programs as background tasks. It parcels up its work into discrete bundles and tosses them into tuple space. Later after they have been dealt with it retrieves them.

Guess what the 286 does? Hooray for you. It is on the other end of the network so I can run LINDA. This 286 also serves as my antivirus machine. Everything that comes in through the door gets checked on this machine. Naturally it runs stand alone when performing virus duties. Once in a while it gets carted out to the workshop to act as a testbed or as a download source if I am doing a setup.

I have cobbled together a conglomeration of parts—cards, keyboard, power supply and so on that live in the workshop but it have no case. Motherboards get swapped around all the time. Sort of "Open Architecture." At best it can be described as variable. I have toyed with the idea of including it on the network but it is too unstable—things keep changing. This is really a testbed.

Then there is my regular computer that I use most of the time. The one that I do most of my writing, database and comms on. It is an XT with 80 MB of HDD and 2 MB of AST Rampage expanded memory set up as a RAMDISK. 2 floppies and 640 KB RAM.

My number one reason for using it is that I like the keyboard. It is an original

IBM 10-ton keyboard. They have yet to make another keyboard to equal it. Its problem it is that is not AT-compatible. Later keyboards had a switch on the back to toggle between the XT and the AT. This one doesn't. It is still the only keyboard that I can find all the keys on.

This is the machine that is attached to my modem and hence to the BBS. It does all of the things that I want to do with a day-to-day computer. It is comfortable. The XT is not usually on the network but that is now imminent.

The 486, the AT and the XT all live in the same room and are all within reach of each other. There are a couple of modifications from a conventional layout. The floppy drives on the 486 have been set up externally. An independently powered case with an extended ribbon cable gets them about 2 metres away from the main box which is tucked away out of sight and hearing below the table.

On both the XT and the 486 the printer ports (LPT1 and LPT2) attach to my regular printer and a dedicated label printer via a switch.

Two of the three monitors sit on a shelf at eye level.

The 486 keyboard (also an IBM but not an original) sits in an below-desk keyboard drawer.

I use one of those ergonomic chairs that you kneel on. They are great.

Most monitors live a long way from their related "box", as do the keyboards—there is a mare's nest of wiring running everywhere. I would tidy it all up and hang it off the hooks that I have installed under the tables but I keep changing things around and it never stays tidy for long.

I also have a friendly NEC PC-8201 laptop. With 32 kB of non-volatile RAM and a word processor, Basic and a Comms program in ROM. It is a non-DOS computer. It runs off mains or 4 AA batteries. Not the most versatile but occasionally handy for some things that require portable, low-power computing.

I use the Comms program and a null modem to transfer files to the XT.

I did not set out to have a setup like this. Each addition was a target of opportunity. One way or another I acquired a computer or a card or whatever and I incorporated it into my existing setup.

It just grewed.



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